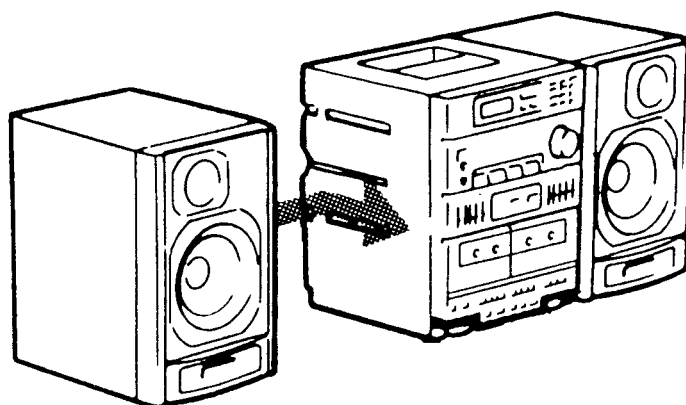


FH-616R

SERVICE MANUAL

*Canadian Model
AEP Model
E Model*



- FH-616R is composed of following models.
As for the service manual it is issued for each component model, than, please refer to it.

COMPONENT MODEL NAME FOR FH-616R

	Canadian, West Germany, E model	AEP model
TUNER, DECK, AMPLIFIER	HST-616	
SPEAKER SYSTEM	SS-H616	SS-H414

SPECIFICATIONS

Power requirements	Canadian model: 120 V AC, 60 Hz AEP model : 220V, 50/60 Hz E model : 110 - 120 V or 220 - 240 V AC adjustable, 50/60 Hz
Power consumption	Canadian model: 105 watts AEP model : 80 watts E model : 80 watts
Dimensions	Approx. 595 x 270 x 250 mm (w/h/d) (23 1/2 x 10 3/4 x 10 inches) incl. projecting parts and controls
Weight	Canadian, AEP model : Approx. 10.8 kg (23 lb 6 oz) net Italian, E model : Approx. 10.6 kg (23 lb 13 oz) net

Design and specifications subject to change without notice.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- WG : West Germany model

PARTS LIST

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-501-349-11	ANTENNA, LOOP (AM)
1-465-166-11	REMOTE COMMANDER (RM-S616)
2-128-529-01	CASE, BATTERY
3-694-922-01	SHEET, PROTECTION
3-750-458-11	(Canadian, AEP, E)... MANUAL INSTRUCTION
3-750-458-41	(AEP)....MANUAL INSTRUCTION
3-750-458-51	(WG, IT)...MANUAL INSTRUCTION
*4-910-128-01	CUSHION
*4-930-375-01	(E)...INDIVIDUAL CARTON
*4-930-376-01	(Canadian, AEP, WG, IT)...INDIVIDUAL CARTON
*X-4919-684-1	(E)...HANDLE ASSY

**COMPACT HI-DENSITY
COMPONENT SYSTEM
SONY®**



9-953-843-11

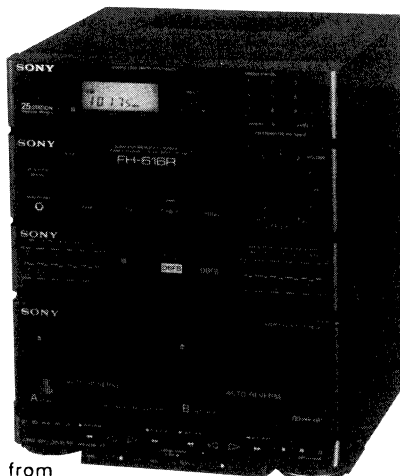
Sony Corporation
Audio Group

English
89E1646-1
Printed in Japan
©1989.5
Published by A/V Engineering Service Dept.

HST-616

SERVICE MANUAL

*Canadian Model
AEP Model
E Model*



This Set is the tuner, deck and amplifier section in FH-616R.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

SPECIFICATIONS

Tuner Section

System FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 – 108 MHz
Antenna Telescopic antenna
Antenna terminals 75 ohms unbalanced
Intermediate frequency 10.7 MHz

AM tuner section

Intermediate frequency 450 kHz

MW/LW tuner section (for AEP model)

	MW	LW
Tuning range	531 – 1602 kHz (except Italian model) 522 – 1611 kHz (for the Italian model)	153 – 281 kHz (except Italian model) 144 – 288 kHz (for the Italian model)
Antenna	AM loop antenna External antenna terminals	

MW tuner section (for Canadian model)

	MW
Tuning range	530 – 1710 kHz
Antenna	AM loop antenna External antenna terminals

SW/MW tuner section (for E model)

	SW1	SW2	MW
Tuning range	3.2 – 7.3 MHz	9.5 – 21.75 MHz	531 – 1,602 kHz
Antenna	AM loop antenna External antenna terminals		

Amplifier Section

Continuous RMS power output
25 + 25 watts (6 ohms, at 1 kHz, 5% THD)
Canadian model: 18 + 18 watts (6 ohms, 80 Hz – 20 kHz, 1% THD)

Model Name Using Similar Mechanism	TC-WR808	
Tape Transport Mechanism Type	DECK A	TCM-170RA5
	DECK B	TCM-170RB17

Peak music power output

E model : 240 watts (6 ohms)

Inputs

	Sensitivity	Impedance
CD (phono jacks)	450 mV	50 kilohms
MIC (minijack)	1 mV	600 ohms
PHONO (phono jacks)	5mV	47 kilohms

Outputs

HEADPHONES (stereo minijack)	Accepts headphones of 8 ohms or more.
SPEAKER	Accepts speakers of 6 to 16 ohms.

Cassette Deck Section

Recording system 4-track 2-channel stereo
Frequency response (DOLBY NR OFF)
60 – 13,000 Hz (± 3 dB), using TYPE I cassette (Sony HF-S)
60 – 14,000 Hz (± 3 dB), using TYPE II cassette
0.1% WRMS
Wow and flutter ± 0.3 % (DIN)

— Continued on page 2 —

**COMPACT HI-DENSITY
COMPONENT SYSTEM
SONY®**



General

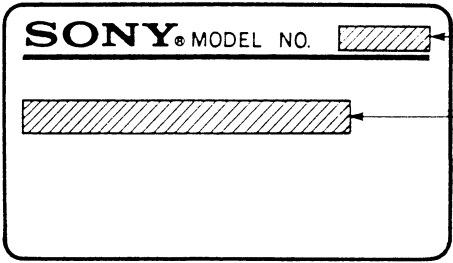
Power requirements	Canadian model: 120 V AC, 60 Hz AEP model : 220V AC, 50/60 Hz E model : 110 – 120 V or 220 – 240 V AC adjustable, 50/60 Hz	Weight	Canadian and European except Italian models: Approx. 10.8 kg (23 lb 6 oz) net Model for other countries: Approx. 10.6 kg (23 lb 13 oz) net	
Power consumption	Canadian model: 105 watts AEP model : 80 watts E model : 80 watts	Optional accessories	Drum pad	DRP-1
Dimensions	Approx. 595 × 270 × 250 mm (w/h/d) (23½ × 10¾ × 10 inches) incl. projecting parts and controls		CD player	CDP-S37
Design and specifications subject to change without notice.				

TABLE OF CONTENTS

Section	Title	Page	Section	Title	Page
Specifications		1	4. DIAGRAMS		
Model Identification		2	4-1. Circuit Boards Location		11
1. GENERAL			4-2. Printed Wiring Boards		
1-1. Parts Identification		3	(AMP/TUNER Block)		12
2. DISASSEMBLY			4-3. Schematic Diagram (AMP/TUNER Block)		17
2-1. Removing the Case		5	• IC501 M50964-212SP PIN FUNCTIONS		20
2-2. Removing the Power Board		5	4-4. Printed Wiring Board (DECK Block)		22
2-3. Removing the TC Main Board		5	4-5. Schematic Diagram (DECK Block)		27
2-4. Removing the Main Board		6	4-6. Schematic Diagram (TUNER Block)		32
2-5. Removing the Control Board		6	5. EXPLODED VIEWS		37
3. ADJUSTMENTS		7	6. ELECTRICAL PARTS LIST		41

MODEL IDENTIFICATION

—Specification Label—



IT model : FH-616R

except IT model : HST-616

Canadian model : AC: 120V 60Hz 105W

AEP model : AC: 220V 50/60Hz 110W

WG, IT model : AC: 220V 50Hz

E, EA model : AC: 110-120/220-240V 50/60Hz 65W

- EA : Saudi Arabia
- WG : West Germany
- IT : Italian

SAFETY-RELATED COMPONENT WARNING!!

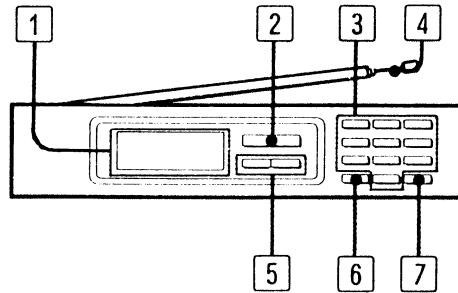
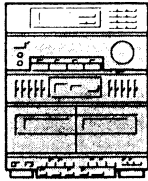
COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

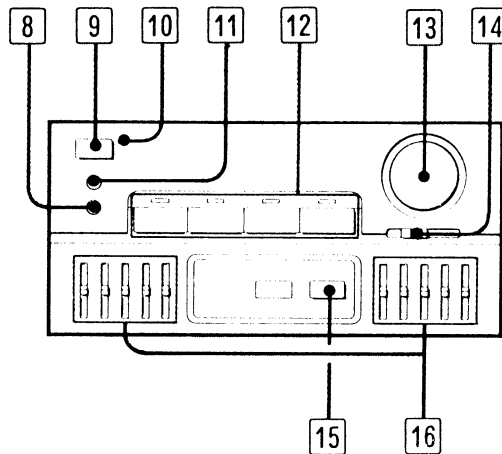
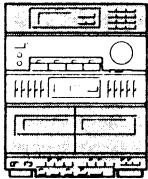
SECTION 1 GENERAL

Parts Identification



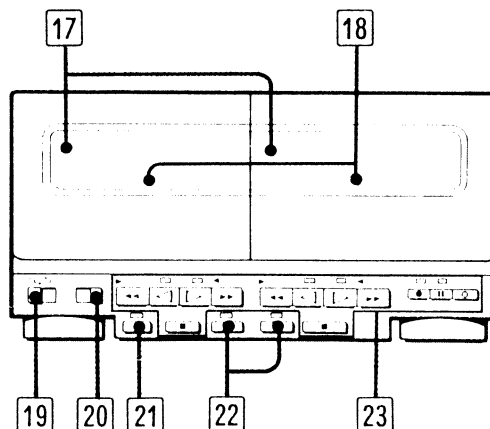
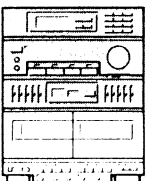
Tuner Section

- 1 Display window
- 2 BAND selector
- 3 PRESET STATION buttons
- 4 Telescopic antenna
- 5 TUNING +/- buttons
- 6 MEMORY button
- 7 ENTER button



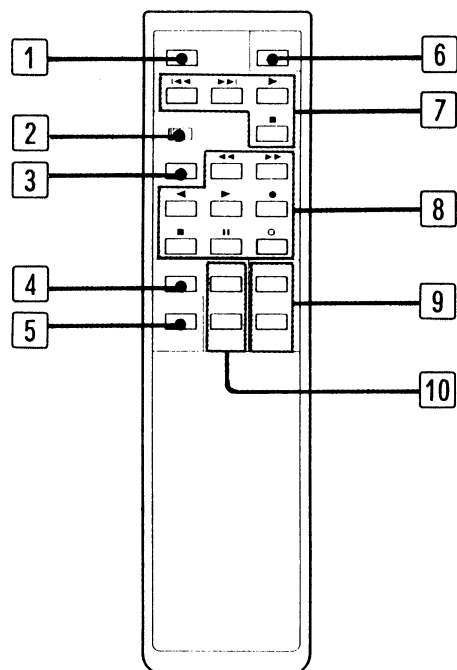
Amplifier Section

- 8 HEADPHONES jack (stereo minijack)
- 9 POWER switch
- 10 STANDBY indicator
It is lit as long as the AC power cord is connected to a wall outlet.
- 11 MIX MIC (microphone) jack (minijack)
- 12 Function selectors
- 13 VOLUME control
- 14 BALANCE control
- 15 DBFB (Dynamic Bass Feedback) button (Canadian, AEP model)
SAT (Super Acoustic Turbo) button (E model)
- 16 5-band stereo graphic equalizer



Cassette Deck Section

- 17 PUSH (Eject)
- 18 Cassette holder
- 19 DIRECTION mode selector
- 20 DOLBY NR switch
- 21 AMS/BLANK SKIP button
- 22 DUBBING SPEED selectors
- 23 Tape operation buttons
 - : Fast winding
 - : Forward play
 - : Reverse play
 - : STOP
 - : Pause
 - : Record muting
 - : Record



Remote Commander

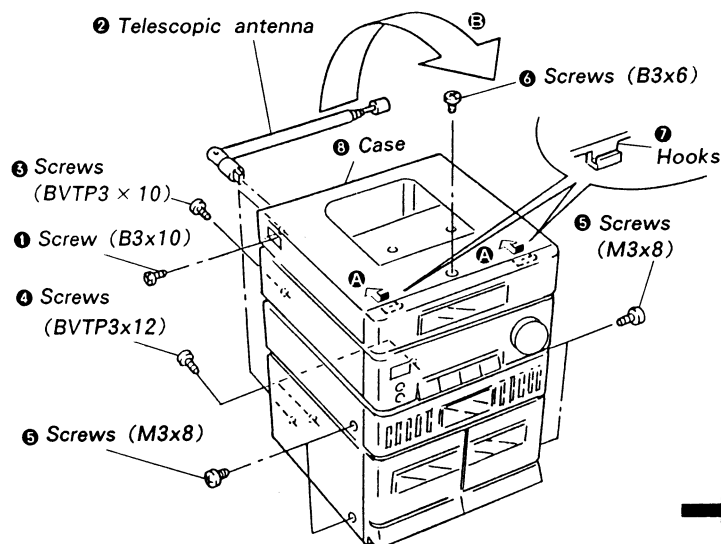
- 1 CD function button
- 2 Deck selector
- 3 TAPE function button
- 4 TUNER function button
- 5 PHONO function button
- 6 POWER switch
- 7 CD player operation buttons
- 8 Tape deck operation buttons
- 9 VOLUME +/- buttons
- 10 PRESET +/- buttons

SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

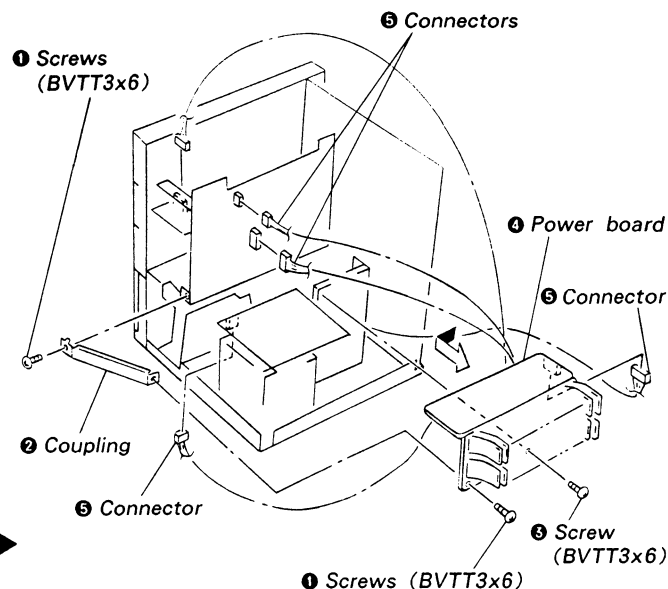
2-1. REMOVING THE CASE

- 1) Remove screw ① (B3×10) and remove telescopic antenna ②.
- 2) Remove three screws ③ (BVTP3×10), two screws ④ (BVTP3×12), four screws ⑤ (M3×8) and screw ⑥ (B3×6).
- 3) Push the upper part of the case in the direction of arrows ⑦ to separate from hooks ⑧.
- 4) Remove case ⑨ in the direction of arrow ⑩.



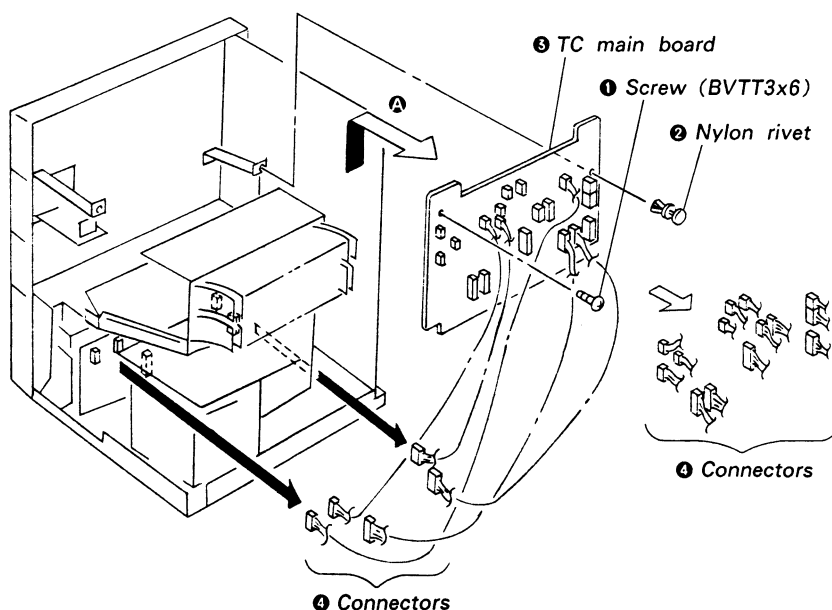
2-2. REMOVING THE POWER BOARD

- 1) Remove two screws ① (BVTT3×6) and remove coupling ②.
- 2) Remove screw ③ (BVTT3×6) and remove power board ④ in the direction of the arrow.
- 3) Remove four connectors ⑤.



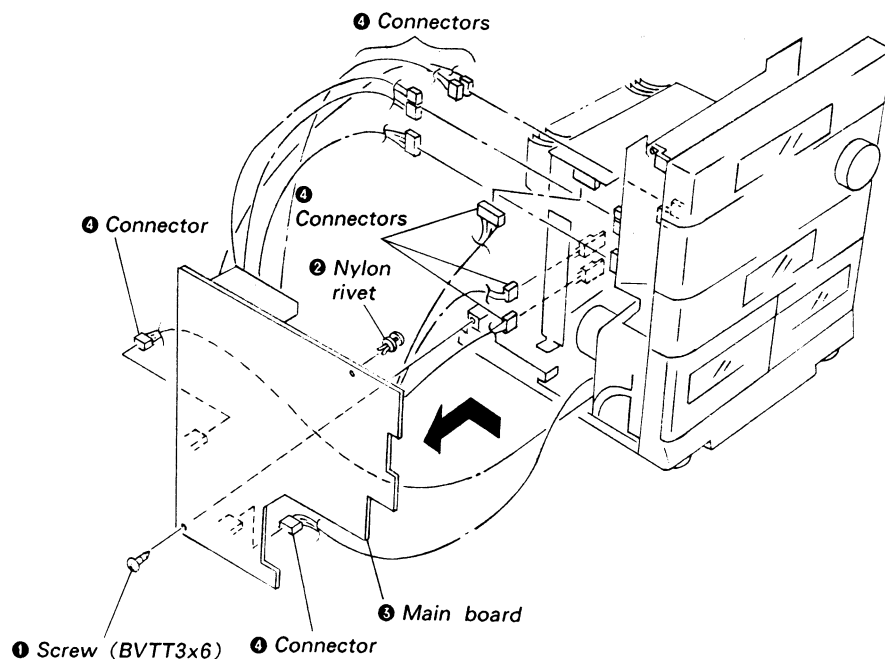
2-3. REMOVING THE TC MAIN BOARD

- 1) Remove screw ① (BVTT3×6) and nylon rivet ②.
- 2) Remove TC main board ③ in the direction of arrow ④.
- 3) Remove 19 connectors ⑤.



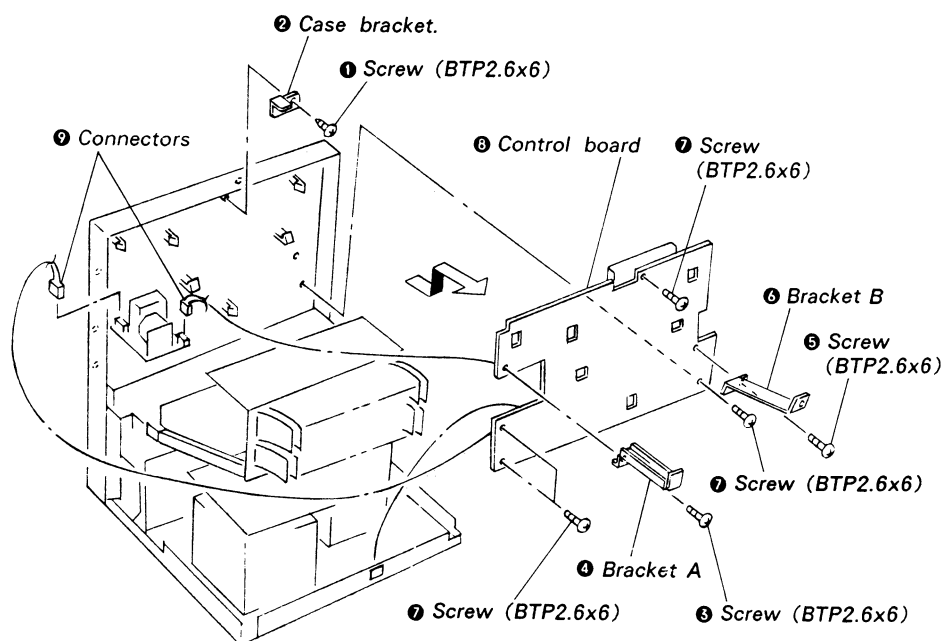
2-4. REMOVING THE MAIN BOARD

- 1) Remove screw ❶ (BVTT3×6) and nylon rivet ❷.
- 2) Remove main board ❸ in the direction of the arrow.
- 3) Remove nine connectors ❹.



2-5. REMOVING THE CONTROL BOARD

- 1) Remove screw ❶ (BTP2.6×6) and the case bracket ❷.
- 2) Remove screw ❸ (BTP2.6×6) and bracket A.
- 3) Remove screw ❹ (BTP2.6×6) and bracket B.
- 4) Remove four screws ❺ (BTP2.6×6).
- 5) Remove control board ❻ in the direction of the arrow.
- 6) Remove two connectors ❼.



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

DECK SECTION

- Clean the following parts with a denatured-alcohol-moistened swab:

Record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement (DECK A,B)

Mode	Torque Motor	Torque
FWD	CQ-102C	30—70g • cm 0.41—0.97oz • inch
FWD back tension	CQ-102C	2—6g • cm 0.03—0.08oz • inch
REV	CQ-102RB	30—70g • cm 0.41—0.97oz • inch
REV back tension	CQ-102RB	2—6oz • cm 0.03—0.08oz • inch
FF, REW	CQ-201B	90—160g • cm 1.25—2.22oz • inch

3-2. ELECTRICAL ADJUSTMENTS

DECK SECTION

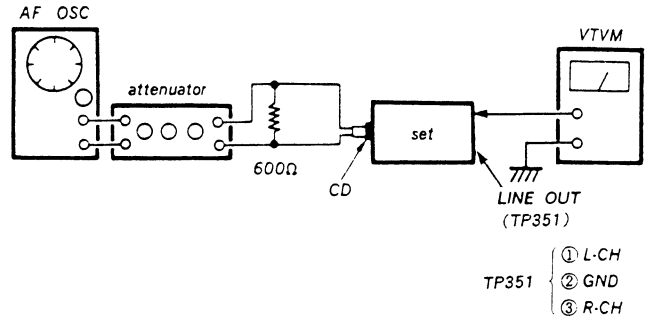
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- The adjustments should be performed for both L-CH and R-CH.
 - Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch:	OFF
GEQ RV:	CENTER
ISS switch:	2
FUNCTION:	CD
 - Standard Record:

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

• See page 21 for IC501 TEST MODE.

Mode: record



Standard Input Level

	AUX/CD
source impedance	600Ω
input level	0.49V (−4dB)

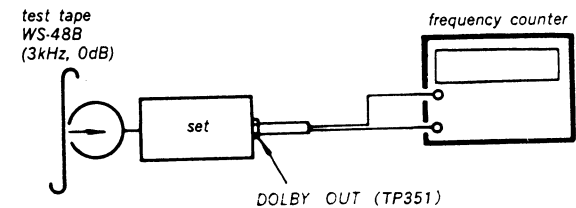
Standard Output Level

	DOLBY OUT
load impedance	—
output level	0.57V (−3dB)

Tape Speed Adjustment DECK A DECK B

Procedure:

Mode: playback



Connect TP101 to ground with jumper wire and continue to press HIGH SPEED DUBING switch: High speed playback. After the high speed adjustment, remove jumper wire of TP101.

(High speed adjustment)

- Playback WS-48B (Tape center portion) in High speed mode.
- Adjust the deck A (H), deck B (H) so that at this time the frequency counter reads 6000 Hz $\pm$ 60Hz.

(Normal speed adjustment)

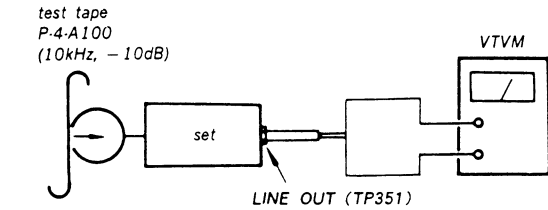
- Playback WS-48B (Tape center portion) in Normal speed mode.
- Adjustment the deck A (L), deck B (L) so that at this time the frequency counter reads 3000 Hz $\pm$ 30Hz.

Frequency difference between the beginning and the end of the tape should be within 0.23%.

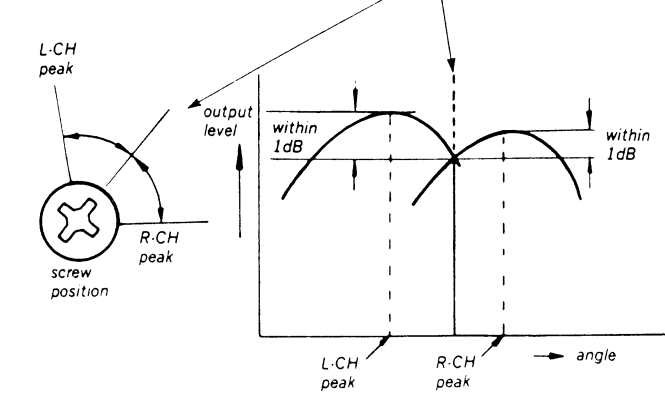
Record/Playback Head Azimuth Adjustment

Procedure:

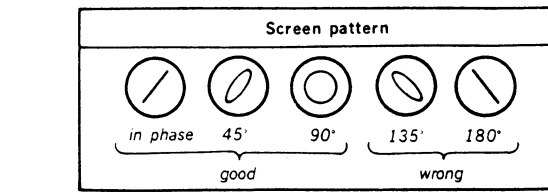
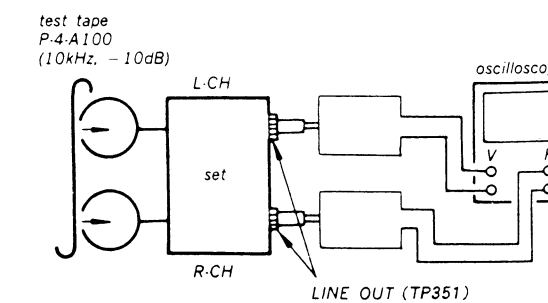
- Mode: playback



- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.

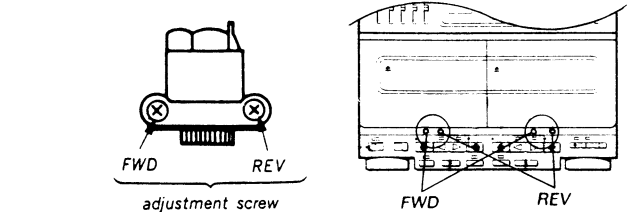


- Phase Check
Mode: playback



- Repeat steps 1—3 in REV playback mode.
- After the adjustment, lock the screws with locking compound.

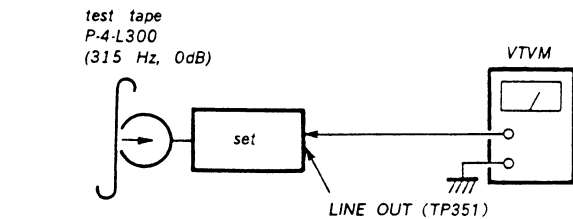
Adjustment Location: REC/PB HEAD



Playback Level Adjustment DECK A DECK B

Procedure:

Mode: FWD playback



Adjust,
DECK-A side RV41A (L-CH), RV61A (R-CH)
DECK-B side RV41B (L-CH), RV61B (R-CH)
so that the specifications are satisfied.
LINE OUT level: 0.52 to 0.58V
(−3.5 to −2.5dB)

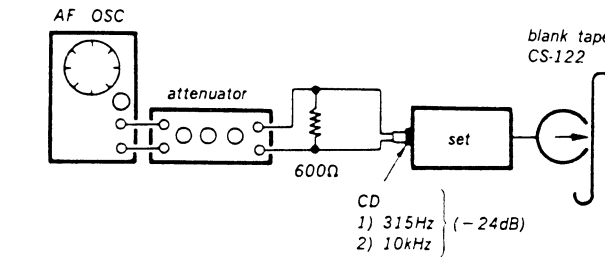
level difference between the channels: within 0.5dB

Adjustment Location: MD-A/-B BOARD (See page 10)

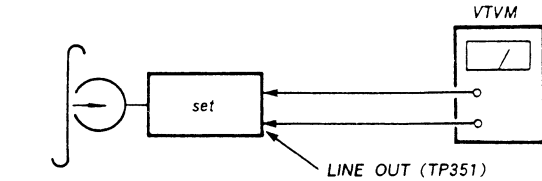
Record BIAS Current Adjustment DECK B

Procedure:

- Mode: record



- Mode: playback



Play back the recorded in step 1. If the specification is not satisfied, adjust RV42 (L-CH), RV62, (R-CH) and repeat steps 1 and 2.

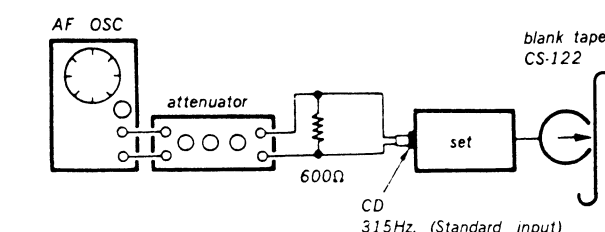
The LINE OUT level of 10 kHz signal relative to that of 315 Hz: −0.5 to 0.5dB

Adjustment Location: MD-A/-B BOARD (See page 10)

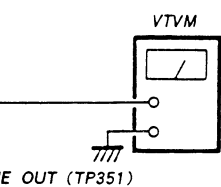
Record Level Adjustment DECK B

Procedure:

- Mode: record

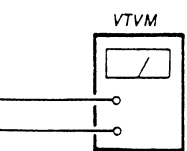
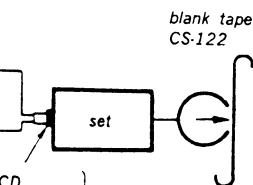


DECK A DECK B



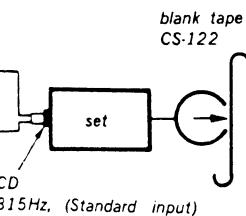
1A(R-CH)
1B(R-CH)
ied.
V
2.5dB)
nels: within 0.5 dB
BOARD (See page 10)

stment DECK B



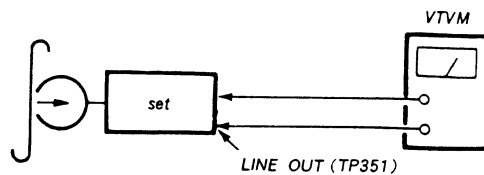
OUT (TP351)
If the specification is not
RV62, (R-CH) and repeat
signal relative to that of
BOARD (See page 10)

DECK B



CD
315Hz, (Standard input)

2. Mode: playback



Play back the recorded in step 1. If the specification is not satisfied, adjust RV321 (L-CH), RV421 (R-CH) and repeat steps 1 and 2.

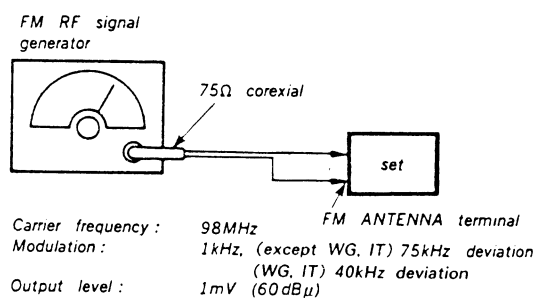
LINE OUT level : 0.55 to 0.46V (−3.0 to −4.5dB)

Adjustment Location: TC MAIN BOARD (See page 10)

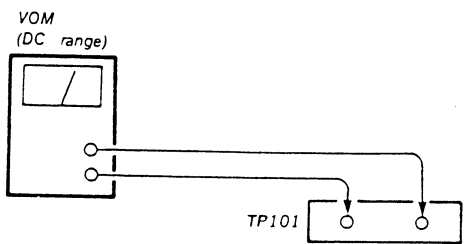
FM SECTION

FM Discriminator Alignment (NULL Check)

Setting:



Carrier frequency : 98MHz
Modulation : 1kHz, (except WG, IT) 75kHz deviation
Output level : 1mV (60dBμ)



Procedure :

1. Push the TUNING (+, −) button for 98 MHz.
2. Adjust IFT101 for 0V reading on the VOM.

Note: FM tuned indication lighting level adjustment should be made after FM discriminator alignment.

Adjustment Location: MAIN BOARD (See page 10)

FM Tuned Indication Lighting Level Adjustment

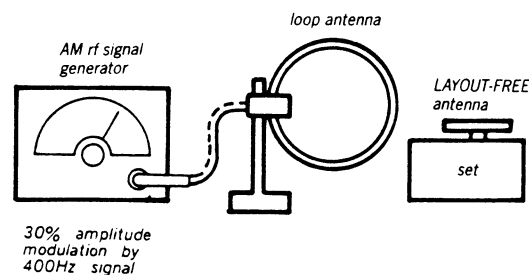
BAND select switch: FM

1. Output 32 μV (30dBμ), 98MHz from FM RF signal generator.
2. Adjust RV101 so that the LCD TUNED light up.

Adjustment Location: MAIN BOARD (See page 10)

AM SECTION

Setting:



- Repeat the procedures in each adjustment several times, and the OSC voltage and tracking adjustments should be finally done by the trimmer capacitors.

Canadian MODEL

MW (AM) Tuned Indication Lighting Level Adjustment

BAND select switch: MW (AM)

1. Output 0.56mV (55dBm), 1,490kHz from AM RF signal generator.
2. Adjust RV102 so that the LCD TUNED light up.

AEP, E, EA MODEL

MW (AM) Tuned Indication Lighting Level Adjustment

BAND select switch: MW (AM)

1. Output 0.56mV (55dBm), 1,404kHz from AM RF signal generator.
2. Adjust RV102 so that the LCD TUNED light up.

AEP MODEL

LW OSC Voltage Adjustment

Procedure :

1. Connect the VOM to D002:2 cathode (VT).
2. Set the BAND selector switch to LW.
3. Push the TUNING (+, −) button for 153kHz (IT: 144kHz) Adjust L001 for 0.9 to 1.1V reading on the VOM.
4. Push the button for 281kHz (IT: 288kHz). Adjust CT001 for 6.8 to 7.2V reading on the VOM.

AEP MODEL

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
270kHz	162kHz
CT005	L010

E, EA MODEL

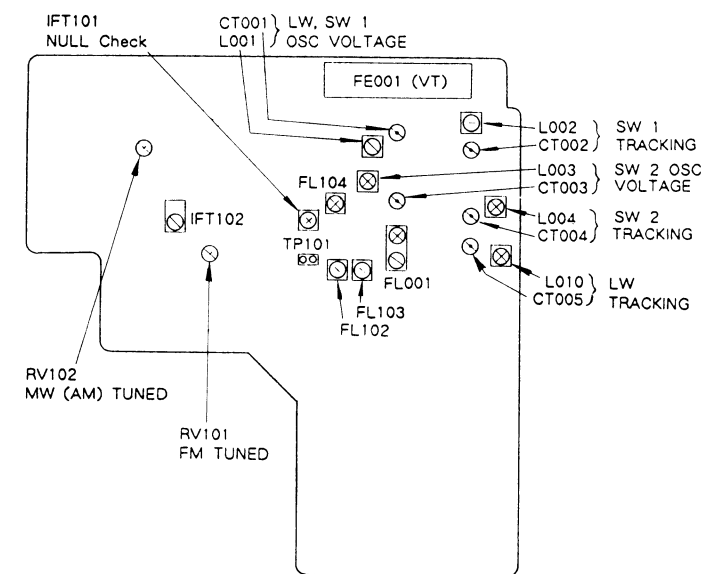
SW1/SW2 OSC Voltage Adjustment

Procedure :

1. Connect the VOM to FE001 ⑤ pin (VT).
2. Set the BAND selector switch to SW.
3. Push the TUNING (+, −) button for 3.2MHz Adjust L001 for 0.9 to 1.1V reading on the VOM.
4. Push the button for 7.3MHz. Adjust CT001 for 8.3 to 8.7V reading on the VOM.
5. Set the BAND selector switch to SW.
6. Push the TUNING (+, −) button for 9.5MHz. Adjust L003 for 0.9 to 1.1V reading on the VOM.
7. Push the button for 21.75MHz. Adjust CT003 for 8.3 to 8.7V reading on the VOM.

Adjustment Location:

MAIN BOARD (COMPONENT SIDE)



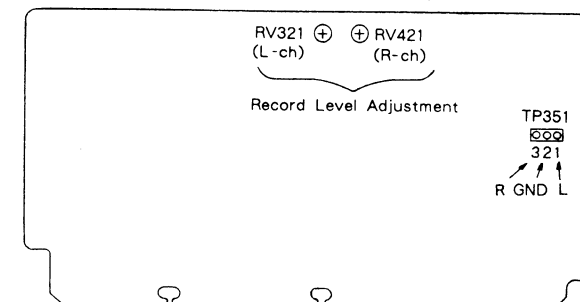
E, EA MODEL

SW1 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
6.5MHz	3.5MHz
CT002	L002

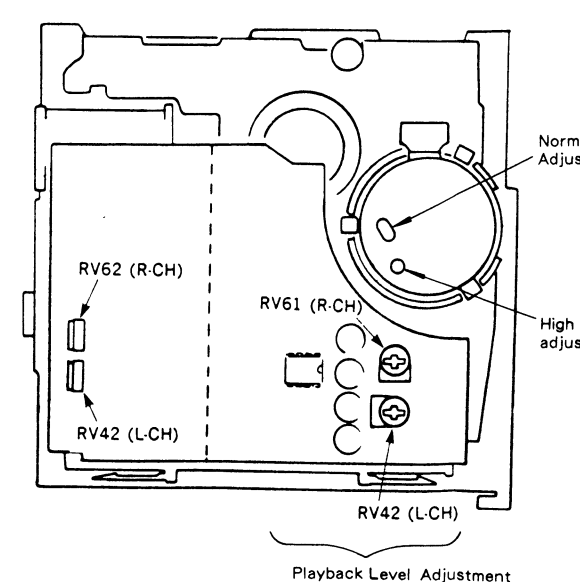
E, EA MODEL

SW2 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
20MHz	10MHz
CT004	L004

TC MAIN BOARD (COMPONENT SIDE)



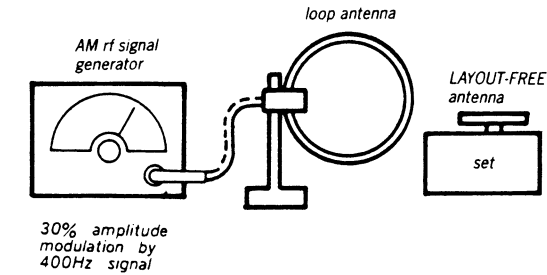
MD BOARD (COMPONENT SIDE)



SECTION 4
DIAGRAMS

AM SECTION

Setting:



• Repeat the procedures in each adjustment several times, and the OSC voltage and tracking adjustments should be finally done by the trimmer capacitors.

Canadian MODEL

MW (AM) Tuned Indication Lighting Level Adjustment

- BAND select switch: MW (AM)
1. Output 0.56mV (55dBm), 1,490kHz from AM RF signal generator.
 2. Adjust RV102 so that the LCD **TUNED** light up.

AEP, E, EA MODEL

MW (AM) Tuned Indication Lighting Level Adjustment

- BAND select switch: MW (AM)
1. Output 0.56mV (55dBm), 1,404kHz from AM RF signal generator.
 2. Adjust RV102 so that the LCD **TUNED** light up.

AEP MODEL

LW OSC Voltage Adjustment

Procedure :

1. Connect the VOM to D002-2 cathode (VT).
2. Set the BAND selector switch to LW.
3. Push the TUNING (+, -) button for 153kHz (IT : 144kHz) Adjust L001 for 0.9 to 1.1V reading on the VOM.
4. Push the button for 281kHz (IT : 288kHz). Adjust CT001 for 6.8 to 7.2V reading on the VOM.

AEP MODEL

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
270kHz	162kHz
CT005	L010

E, EA MODEL

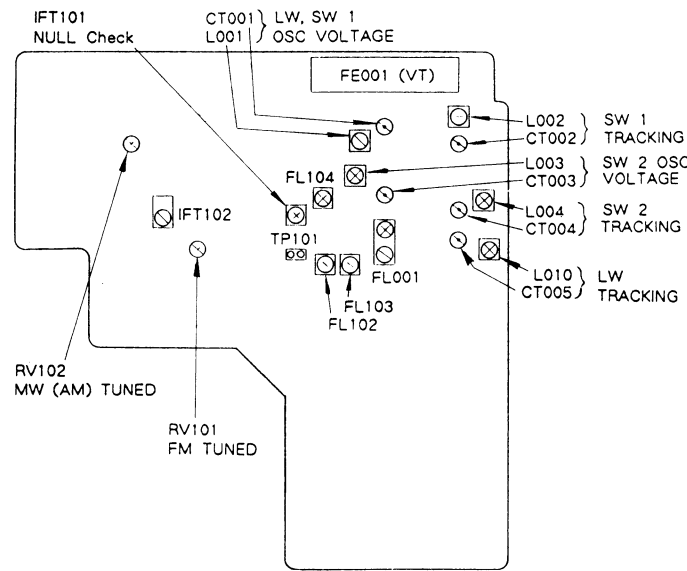
SW1/SW2 OSC Voltage Adjustment

Procedure :

1. Connect the VOM to FE001 ⑤ pin (VT).
2. Set the BAND selector switch to SW.
3. Push the TUNING (+, -) button for 3.2MHz Adjust L001 for 0.9 to 1.1V reading on the VOM.
4. Push the button for 7.3MHz. Adjust CT001 for 8.3 to 8.7V reading on the VOM.
5. Set the BAND selector switch to SW.
6. Push the TUNING (+, -) button for 9.5MHz. Adjust L003 for 0.9 to 1.1V reading on the VOM.
7. Push the button for 21.75MHz. Adjust CT003 for 8.3 to 8.7V reading on the VOM.

Adjustment Location:

MAIN BOARD (COMPONENT SIDE)



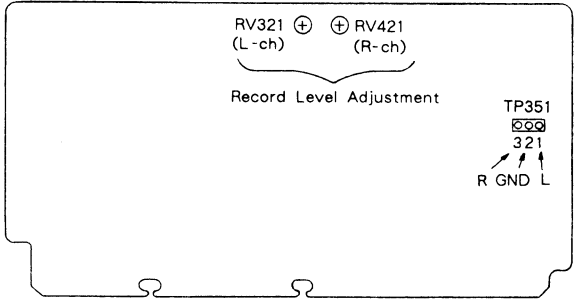
E, EA MODEL

SW1 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
6.5MHz	3.5MHz
CT002	L002

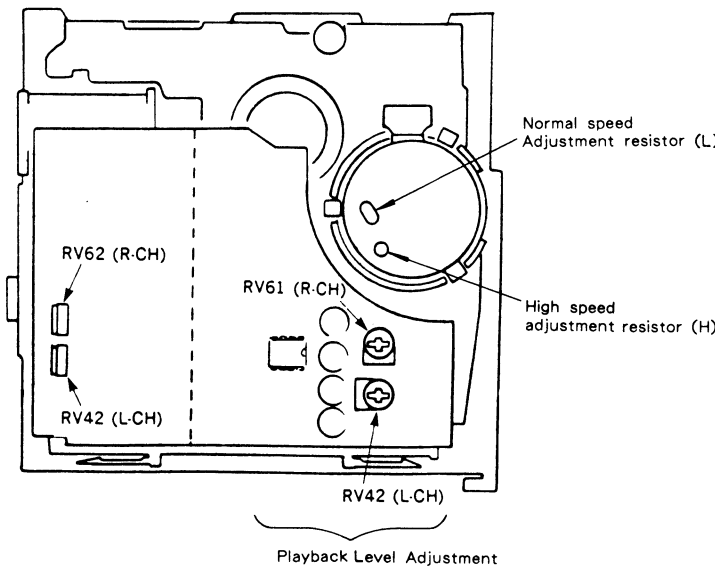
E, EA MODEL

SW2 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
20MHz	10MHz
CT004	L004

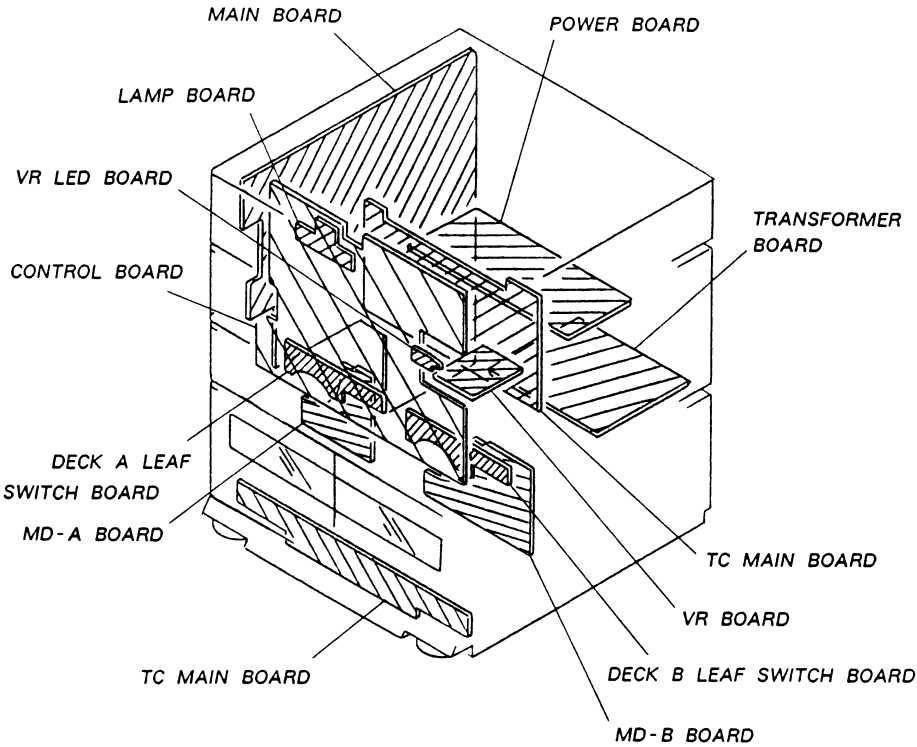
TC MAIN BOARD (COMPONENT SIDE)



MD BOARD (COMPONENT SIDE)



4-1. CIRCUIT BOARDS LOCATION



4-2. PRINTED WIRING BOARDS (AMP/TUNER BLOCK)

• See page 22 for Semiconductors Lead Layout

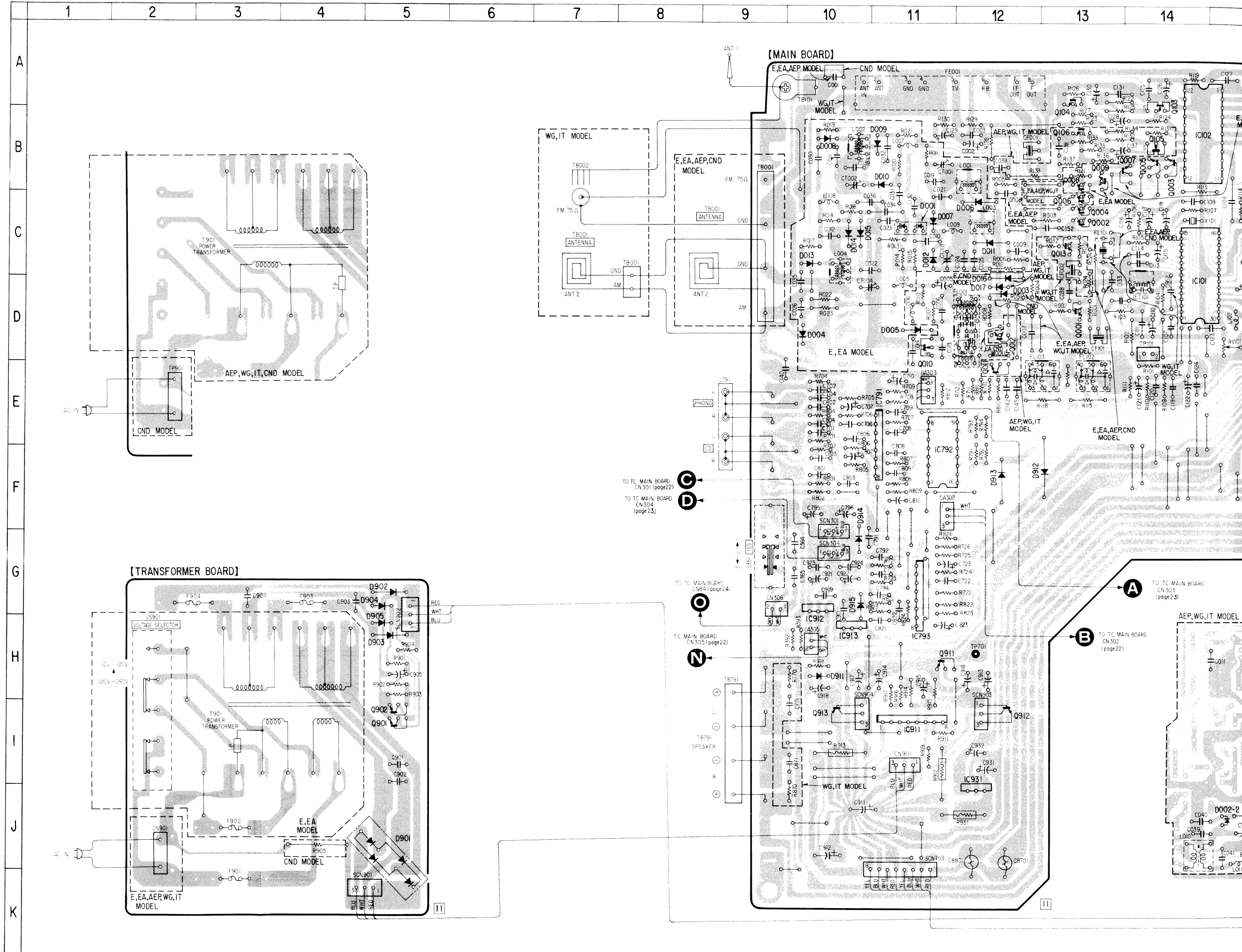
Note:

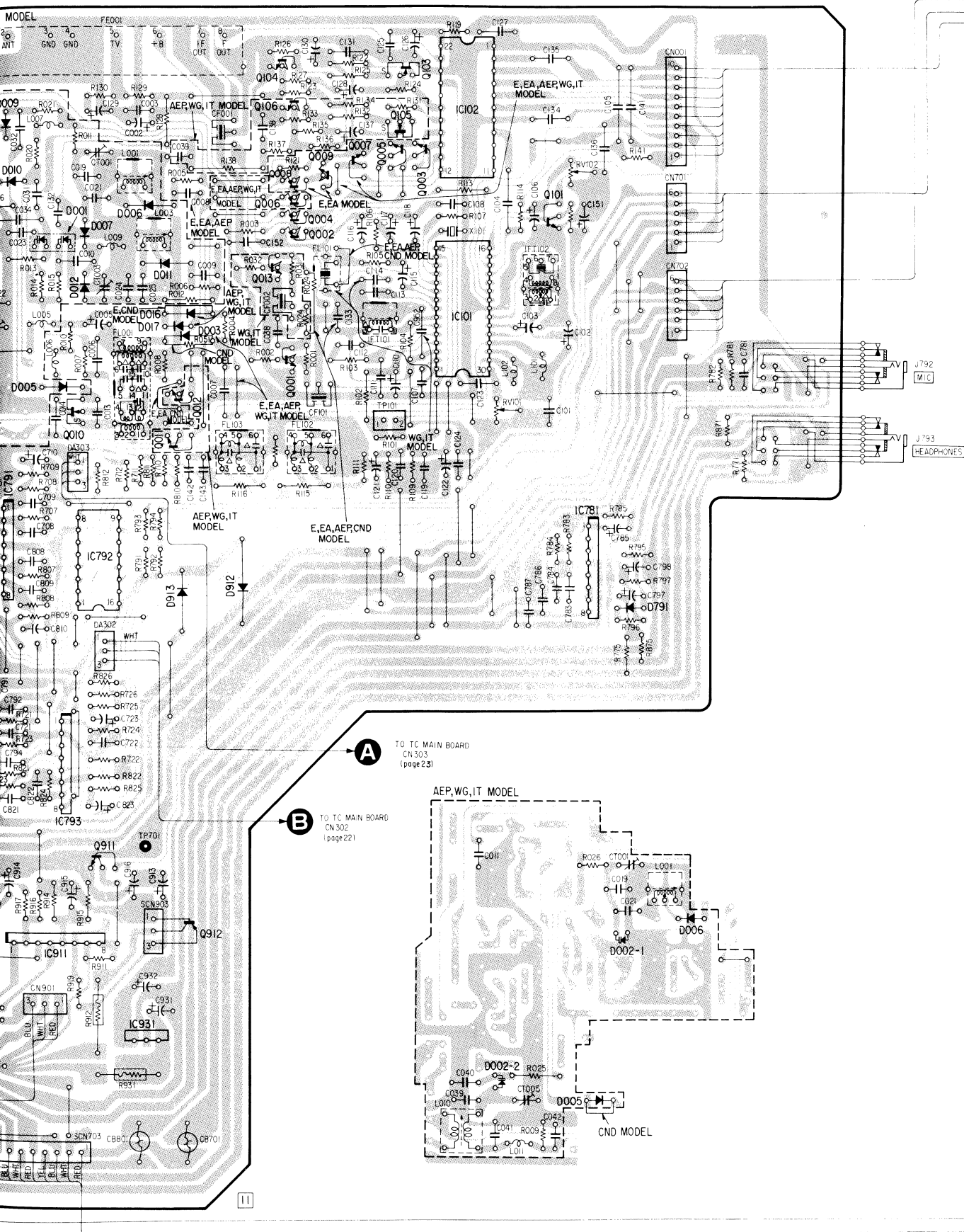
- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : indicates side identified with part number.

- CND : Canadian ● WG : West Germany
- EA : Saudi Arabia ● IT : Italian

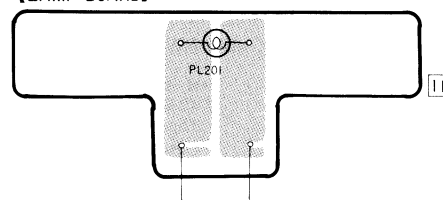
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D001	C-11	IC101	C-14
D002-1	I-16	IC102	B-14
D002-2	J-15	IC201	F-33
D003	D-12	IC601	F-30
D004	D-10	IC671	E-24
D005 (E, EA)	D-11	IC691	I-31
D005 (AEP, WG, IT)	J-16	IC731	I-33
D006 (E, EA)	C-12	IC781	E-15
D006 (AEP, WG, IT)	I-16	IC791	E-11
D007	C-11	IC792	E-11
D008	B-10	IC793	G-11
D009	B-11	IC831	I-30
D010	B-11	IC891	H-21
D011	C-12	IC911	I-11
D012	C-11	IC912	G-10
D013	C-10	IC913	H-10
D014	C-10	IC931	I-12
D015	C-10		
D016	C-12	Q001	D-13
D017	D-12	Q002	C-13
D201	G-33	Q003	B-14
D202	G-32	Q004	C-13
D203	E-32	Q005	B-14
D204	E-32	Q006	C-13
D205	E-32	Q007	B-13
D207	F-32	Q008	B-13
D208	F-32	Q009	B-13
D209	F-32	Q010	D-11
D210	E-32	Q011	E-12
D211	E-32	Q012	D-12
D214	E-32	Q013	C-13
D215	E-32	Q101	C-15
D216	E-32	Q103	A-14
D571B	D-21	Q104	A-13
D601	F-31	Q105	B-14
D602	G-31	Q106	B-13
D603	H-31	Q201	F-34
D604	G-31	Q601	G-34
D605	G-31	Q602	G-34
D606	E-29	Q603	G-30
D611	F-34	Q604	H-30
D612	G-34	Q605	H-31
D613	G-33	Q731	I-32
D614	G-31	Q732	I-32
D615	G-30	Q831	H-31
D616	I-32	Q832	I-30
D617	I-31	Q901	I-5
D691	I-32	Q902	I-5
D692	H-32	Q911	H-11
D791	F-16	Q912	I-12
D901	J-5	Q913	I-10
D902	G-5	Q951	I-25
D903	H-5	Q952	I-25
D904	G-5	Q953	I-25
D905	H-5	Q954	I-25
D911	H-10	Q955	I-24
D912	F-12	Q956	I-24
D913	F-12	Q957	I-24
D914	G-10		
D915	G-10		
D951	I-25		
D952	I-24		

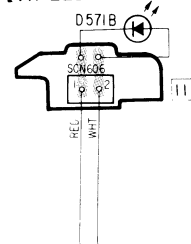




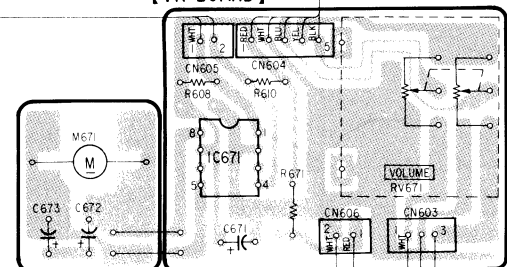
[LAMP BOARD]



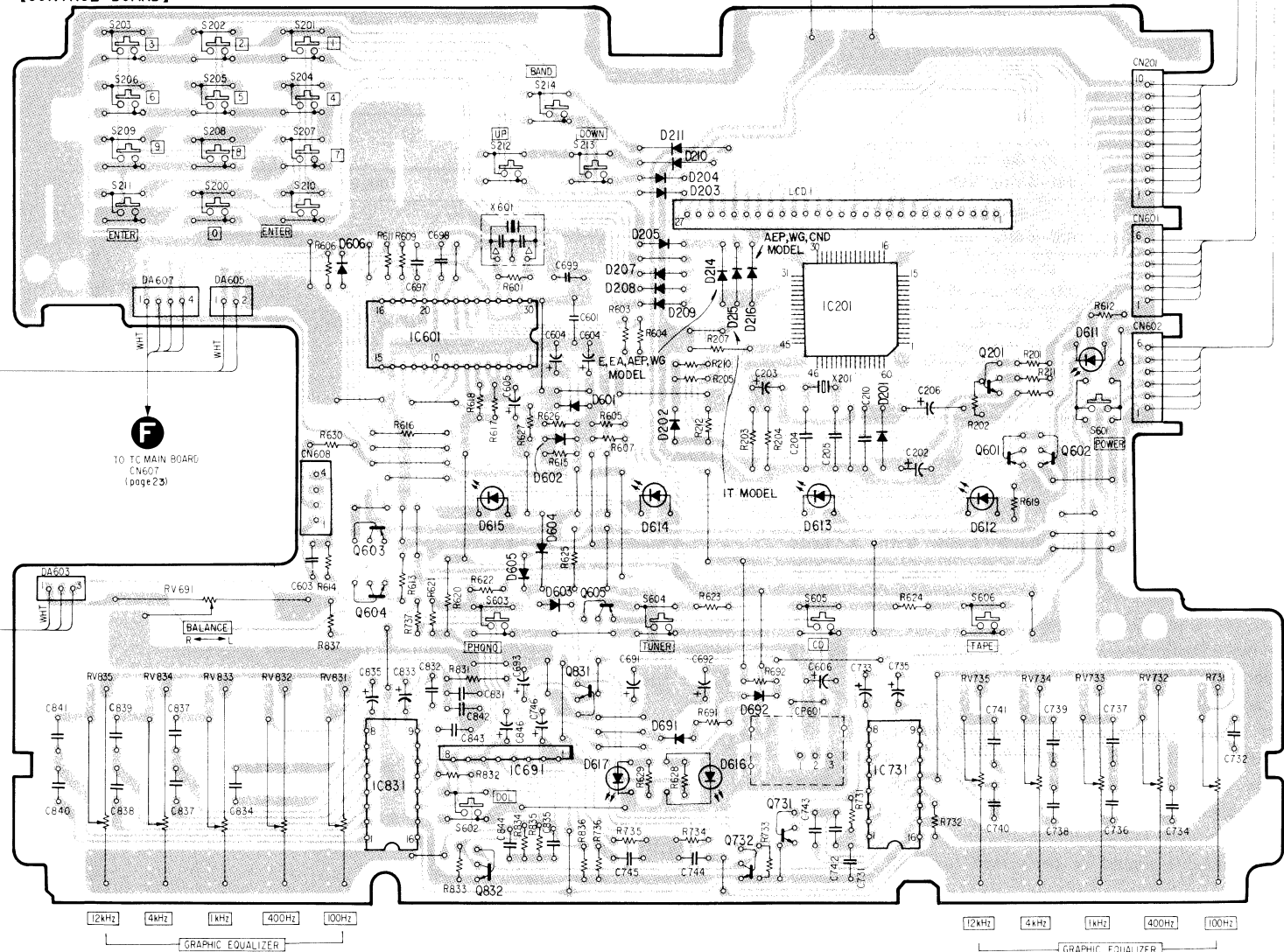
[VR LED BOARD]



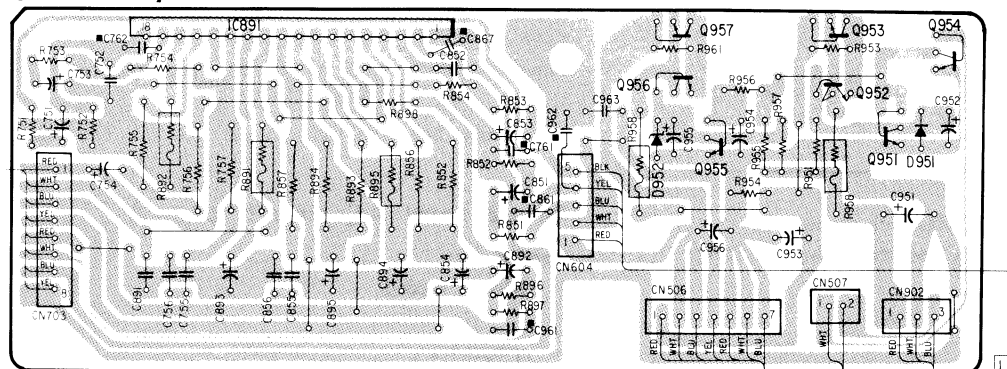
[VR BOARD]



[CONTROL BOARD]



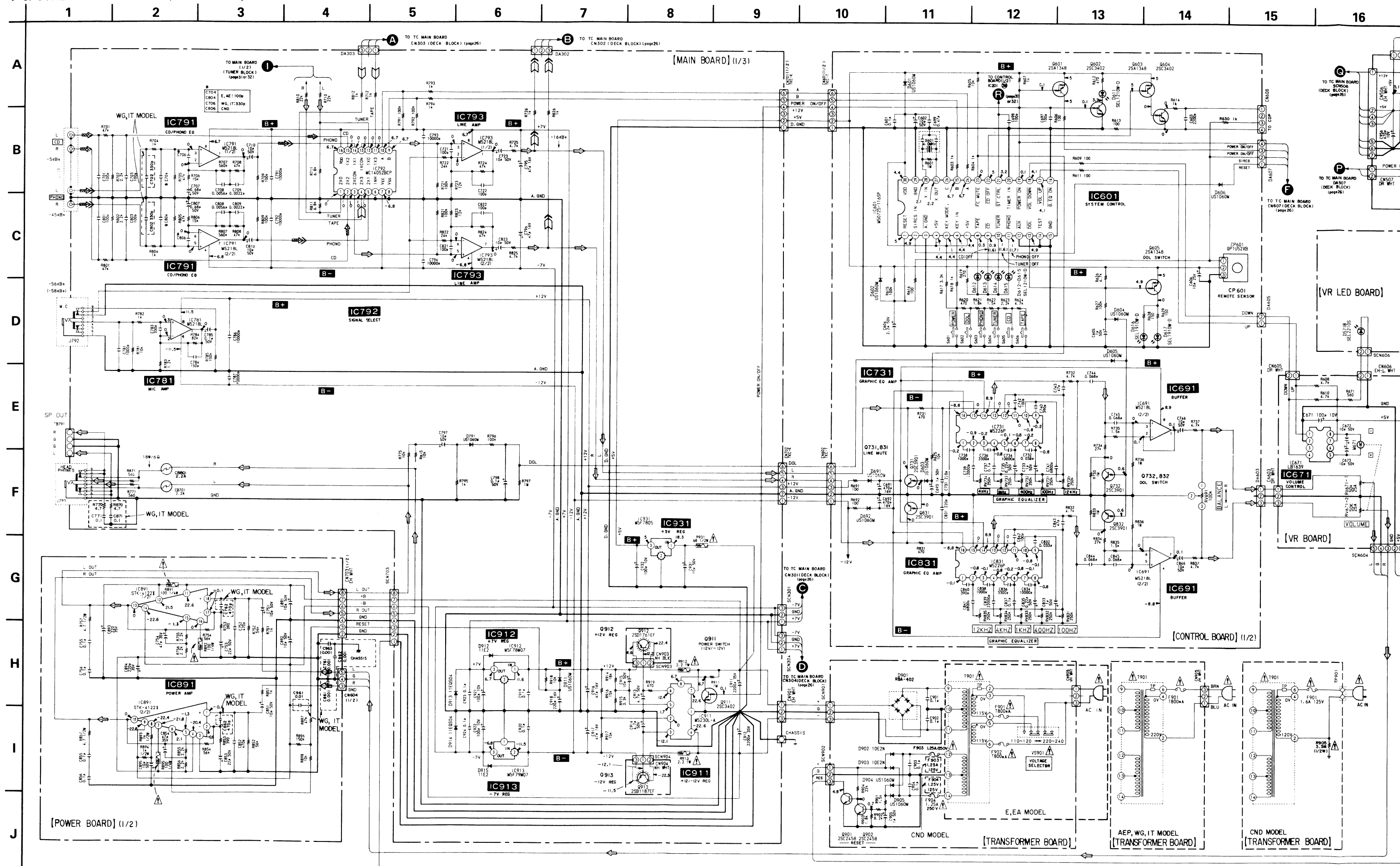
[POWER BOARD]

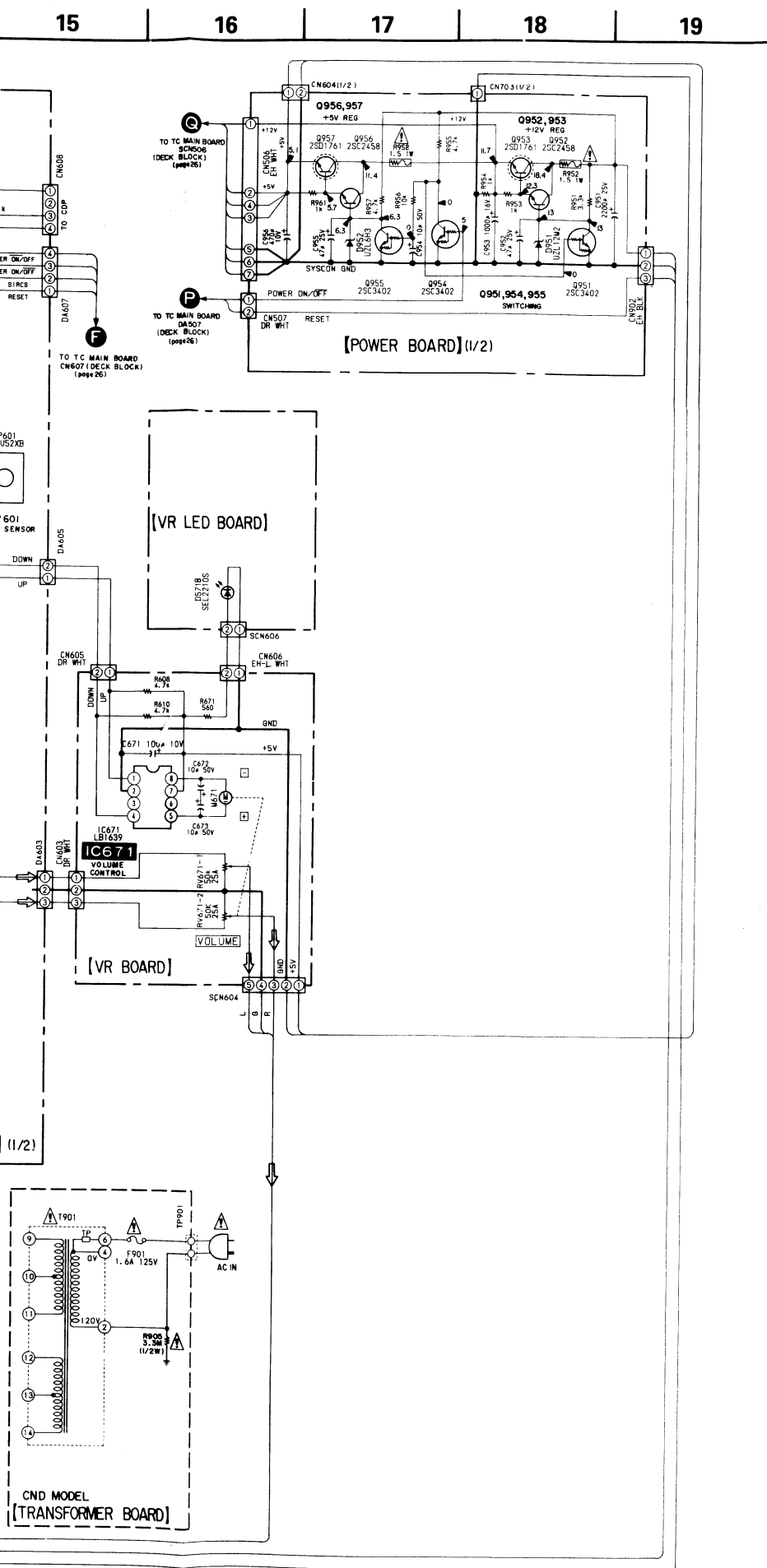


TO TC MAIN BOARD
CN506 (page 23)

TO TC MAIN BOARD
CN507 (page 23)

4-3. SCHEMATIC DIAGRAM (AMP BLOCK)





Note:

- All capacitors are in μF unless otherwise noted, pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- : fusible resistor.

Note:

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$) Voltage variations may be noted due to normal production tolerances.
- Signal path.

: FM : PB (DECK A) : CD
 : REC (DECK A) : PHONO

- CND : Canadian
- EA : Saudi Arabia
- WG : West Germany
- IT : Italian

IC501 M50964-212SP PIN FUNCTIONS

PIN No.	PIN NAME	I/O	SIGNAL NAME	FUNCTION											
1	Vcc		Vcc	POWER 5 ±0.5 V											
2	AVSS		AVSS	Analogue system GND											
3	VREF	I	VREF	Analogue system reference voltage input											
4	D-A	O	D-A	D/A conversion output (Not used : OPEN)											
5	PWM	O	PWM	PWM output (Not used : GND)											
6	P63	O	AMS	AMS LED indication output											
7	P62	O	A FWD	Deck A FWD LED output											
8	P61	O	BIAS IV	TYPE IV bias oscillation output											
9	P60	O	BIAS II	TYPE II bias oscillation output											
10	P47	O	A REV	Deck A RVS LED output											
11	P46	O	A REV	Deck A RVS LED output											
12	AN5	I	B HALF	Deck B Record prevention claw A, B detection input (Analogue)											
				Voltage (V)	1 V	1.9 V	2.8 V	3.9 V	5 V						
				Half	ON	ON	ON	ON	OFF						
				Claw A	OFF	ON	OFF	ON	OFF						
				Claw B	ON	ON	OFF	OFF	OFF						
13	AN4	I	KEY3	KEY input											
14	AN3	I	KEY2	Voltage (V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0
				KEY1	B ■	B ■	B ▶	B ◀	B ○	A ◀◀	A ▶▶		□ B	□ C	OFF
15	AN2	I	KEY1	KEY2	A ■	A ■	A ▶	A ◀		B ◀◀	B ▶▶	B ●	○	RELAY	OFF
				KEY3	AMS		HDUB	NDUB							
16	P41	O	B FWD	Deck B FWD LED output											
17	P40	O	B REV	Deck B RVS LED output											
18	P37	O	A FWD	Deck A FWD LED output											
19	P36	O	B PAUSE	Deck B PAUSE LED output											
20	P35	O	B REC	Deck B REC LED output											
21	P34	O	DOLBY B/C	Dolby B/C output											
22	P33	O	DOLBY ON/OFF	Dolby ON/OFF output											
23	P32	I	SIRCS	SIRCS input or AUDIO BUS reverse input											
24	P31	O	70/120	Playback EQ output for playing deck											
25	P30	O	AUB OUT	AUDIO BUS output											
26	INTI	I	AUB IN	AUDIO BUS normal input											
27	CNVSS		CNVSS	GND											
28	RESET	I	RESET	Microcomputer reset input											
29	XIN	I	XIN	Clock input (4 MHz)											
30	XO	O	XO	Clock output (4 MHz)											
31	Φ	O	Φ	(Not used : OPEN)											
32	Vss		Vss	GND											
33	P57	I	TEST	Electrical adjusting test mode setting											
34	P56	I	TYPE IV	TYPE IV switch input											
35	P55	I	B70/120	Deck B TYPE II switch input											
36	P54	I	B SHUT	Deck B Reel table signal input											
37	P53	I	A70/120	Deck A TYPE II switch input											
38	P52	I	A SHUT	Deck B Reel table signal input											
39	P51	I	A HALF	Deck A Half switch input											

PIN No.	PIN NAME	I/O	SIGNAL NAME	FUNCTION
40	P50	I	AMSIN	AMS signal input
41	P17	O	MMUTE	Meter mute output
42	P16	O	LMUTE	Line mute output
43	P15	O	PASS	PASS AMP change output
44	P14	O	REC/PB	Dolby IC REC/PB select output
45	P13	O	AMS/BS	AMS AMP characteristics change output
46	P12	O	AMS A/B	AMS AMP input Deck A/B select output
47	P11	O	SEL A/B	Dolby IC PB input Deck A/B select output
48	P10	O	BIAS I	TYPE I bias oscillation output
49	P07	O	RELAY	REC/PB change relay output
50	P06	O	PM B	Deck B plunger hold output
51	P05	O	KICK B	Deck B plunger kick output
52	P04	O	PM A	Deck A plunger hold output
53	P03	O	KICK A	Deck A plunger kick output
54	P02	O	B H/L	Deck B capstan motor speed select
55	P01	O	A H/L	Deck A capstan motor speed select
56	P00	O	M ON/OFF	Capstan motor ON/OFF
57	P27	O	REC MUTE	REC MUTE output
58	P26	O	B SCHMITT	Deck B reel table schmitt output
59	P25	O	A SCHMITT	Deck A reel table schmitt output
60	P24	O	HDUB	High Speed Dubbing LED output
61	P23	O	NDUB	Normal Speed Dubbing LED output
62	P22	O	AMS AVAILABLE	Discriminates whether microcomputer reads an AMS port.
63	P21	O	A PAUSE	Deck A PAUSE LED output
64	P20	O	SIRCS/AUB	SIRCS/AUDIO BUS mode select

[TEST MODE]

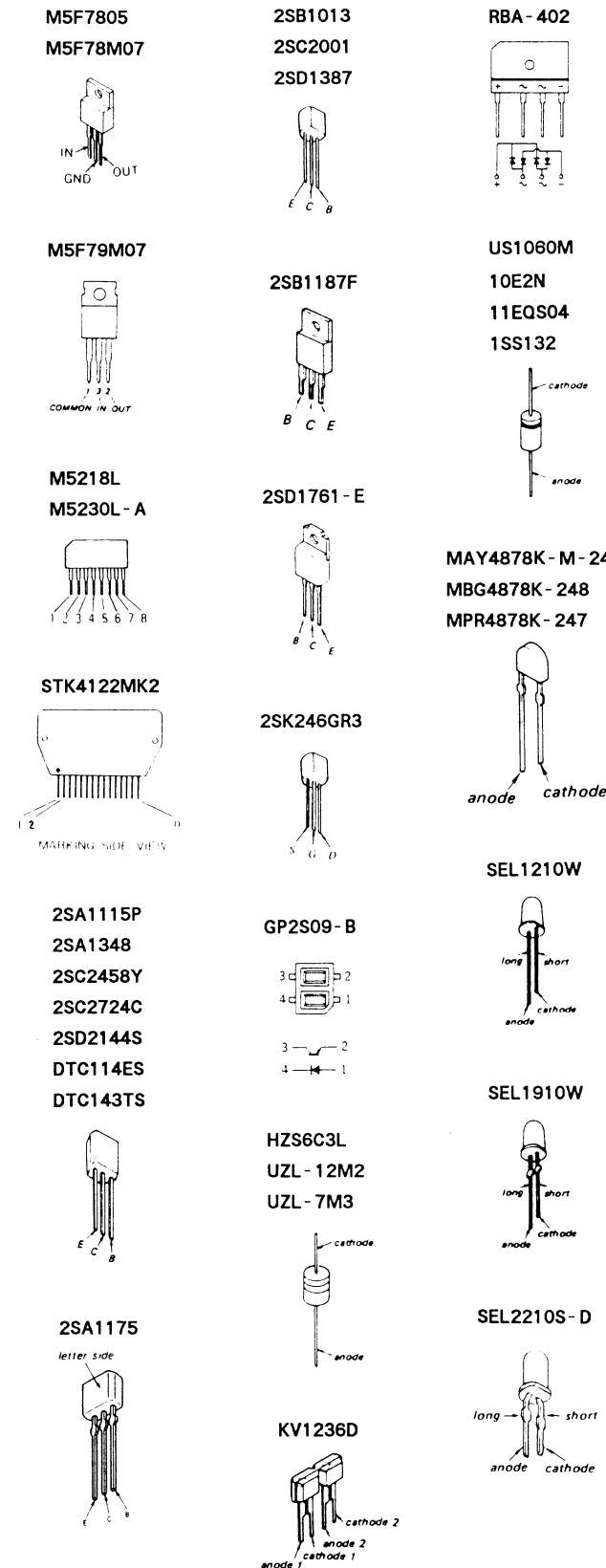
When making pin ③ low (connect TP501 to ground with jumper wire), following function operates.

- Source monitor
Release the line mute while recording.
- High speed playback
On recording, while pressing HIGH SPEED (DUBBING) button, high speed playback operates.
- Record memory stop
Using DIRECTION MODE switch $\rightleftarrows$, returns to the recording start point and stops or plays.

- LED indication of slide switch
When making Deck B pause, LED indicates the positions of DIRECTION MODE switch.

Switch	Position	LED
DIRECTION MODE	$\rightleftarrows$	DECK B ◀
	$\rightarrow$	DECK B ▶
	RELAY	DECK B REC

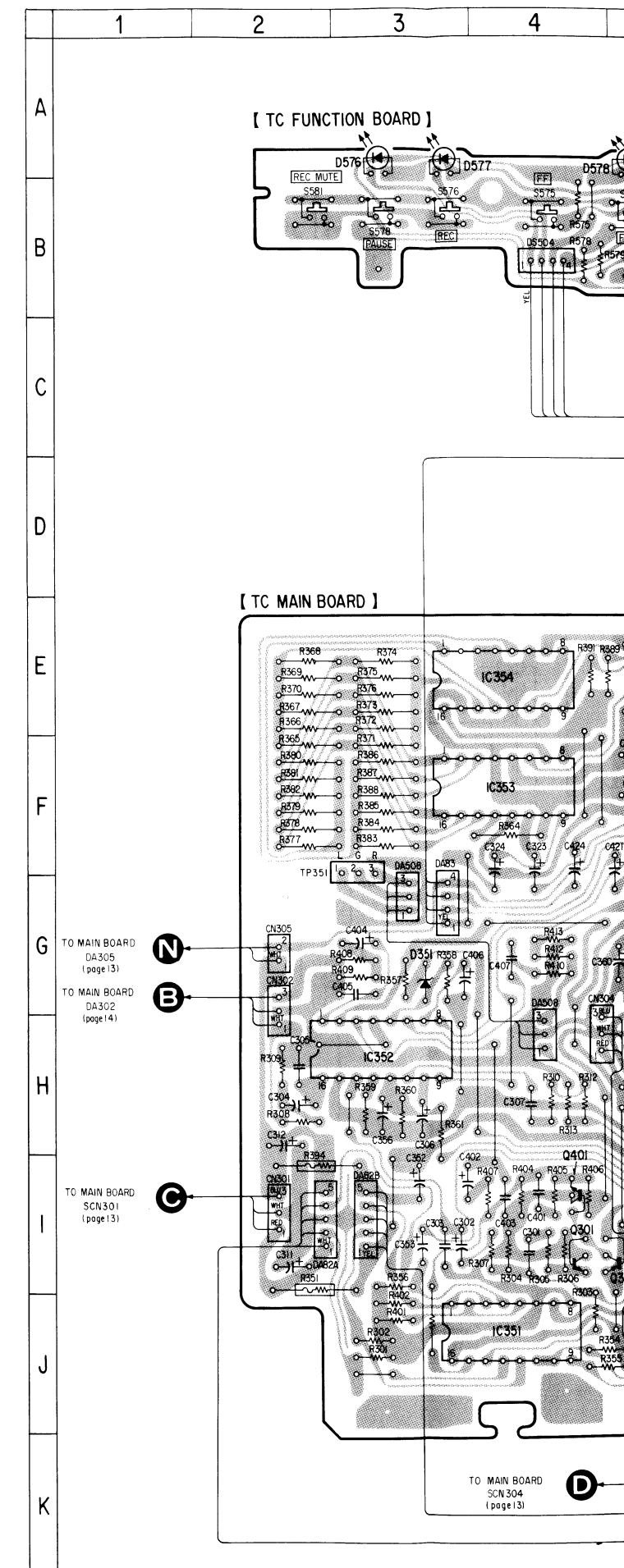
• Semiconductor Lead Layouts



• Semiconductor Location

Ref. No.	Location
D11A	D-18
D11B	I-19
D81	G-14
D351	G-3
D352	E-5
D451	J-6
D501	H-7
D502	G-7
D503	F-7
D504	J-9
D506	I-7
D507	E-9
D571A	B-7
D572	B-6
D573	B-9
D574	A-8
D575	A-7
D576	A-3
D577	A-3
D578	A-5
D579	A-5
IC81A	B-14
IC81B	G-15
IC351	J-4
IC352	H-3
IC353	F-4
IC354	E-4
IC355	G-6
IC451	J-6
IC501	F-9
Q11A	D-13
Q11B	H-15
Q12A	C-16
Q12B	H-17
Q81B	H-14
Q82B	H-14
Q83B	G-14
Q301	I-4
Q302	H-6
Q321	F-5
Q351	F-6
Q352	F-6
Q353	I-5
Q354	H-5
Q401	I-4
Q402	G-6
Q421	F-5
Q451	I-6
Q452	J-6
Q453	J-6
Q503	F-10
Q504	G-10
Q505	G-10
Q506	F-8
Q507	I-7
Q508	I-7
Q509	H-7
Q510	G-7
Q511	H-7
Q512	G-7
Q513	G-7
Q514	G-7
Q515	E-8
Q516	E-7

4-4. PRINTED WIRING BOARDS (DECK BLOCK)



TO POWER BOARD
CN507 (page 15)

→ **A** TO MAIN BOARD
DA303
(page 14)

The diagram illustrates the internal wiring of the Pioneer 3-DX mobile robot. It features a main printed circuit board (PCB) populated with several integrated circuits (ICs) and passive components. Key components include:

- IC81A**: A central microcontroller or logic chip with multiple pins connected to other components.
- IC82A** and **IC83A**: Additional logic or control chips.
- Q11A**: A transistor or relay component.
- Q12A**: A component on the Leaf SW Board.
- D11A**: A diode component on the Leaf SW Board.
- Color Display**: A small screen showing a graphical representation of the robot's environment.
- Reel Capstan Motor**: A motor used for driving the robot's wheels.
- Solenoid**: An electromagnetic actuator.
- Leaf SW Board**: A specialized board containing the solenoid and reed switch.

The diagram shows the intricate wiring connecting these components, including power lines (YEL, BLK, RED, WHT) and signal lines. A color bar at the bottom indicates pin numbers 14, 8, and 2, likely corresponding to a connector or terminal block.

- ○ — : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- [] → indicates side identified with part number.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
--	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----



B + : E
B - : E
 : ac
 Voltages a
 Voltage w
 tion tolera
 no mark :
 ():
 Signal pat
 : PB
 : RE
 : PB

Note:

- All capacitors are in μF unless otherwise noted, pF: μpF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
-  : fusible resistor.

Note:

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

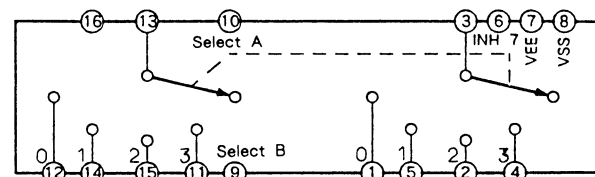
Note:

Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

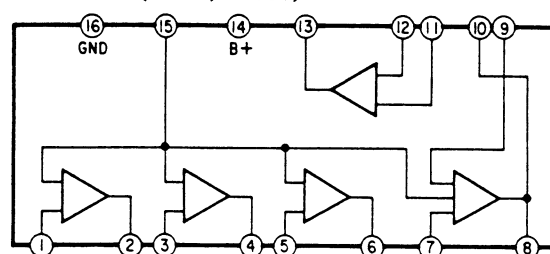
-  : B + Line
-  : B - Line
-  : adjustment for repair.
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$) Voltage variations may be noted due to normal production tolerances.
no mark: DECK A PB
(): DECK B REC
- Signal path.
 : PB (DECK A)
 : REC (DECK B)
 : PB (DECK B)

• IC BLOCK DIAGRAMS

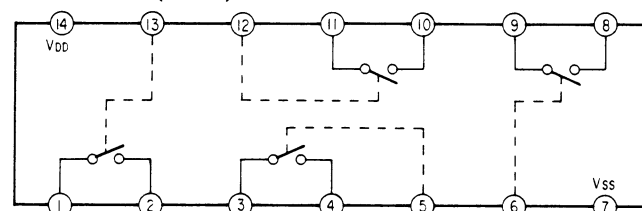
• MC14052BCP (IC792)



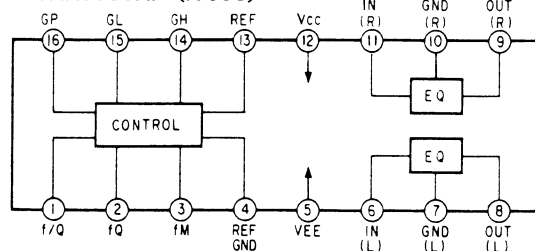
• M5226P (IC731/IC831)



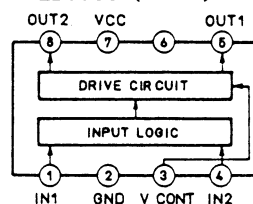
• M4066BP (IC355)



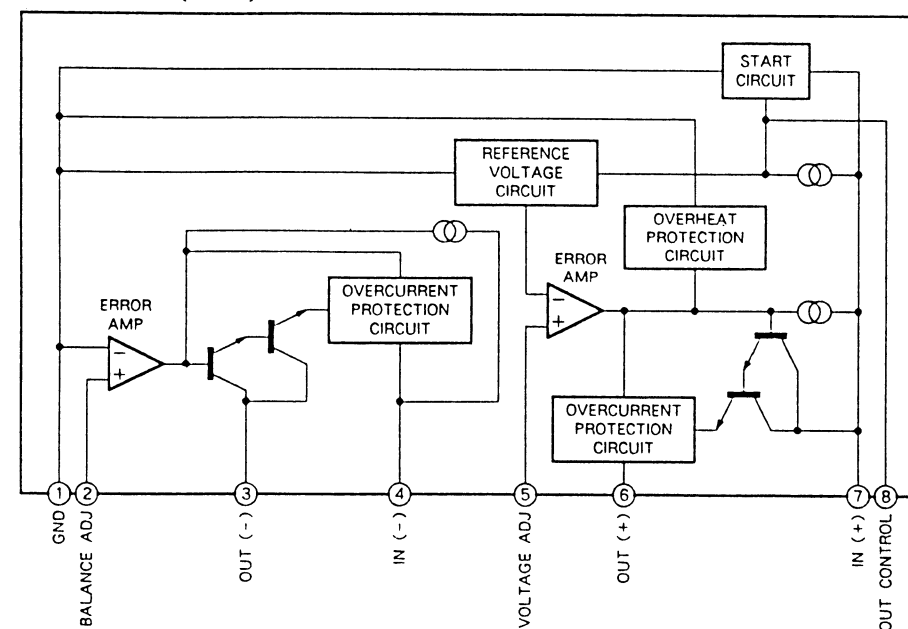
• CXA1198AP (IC353)



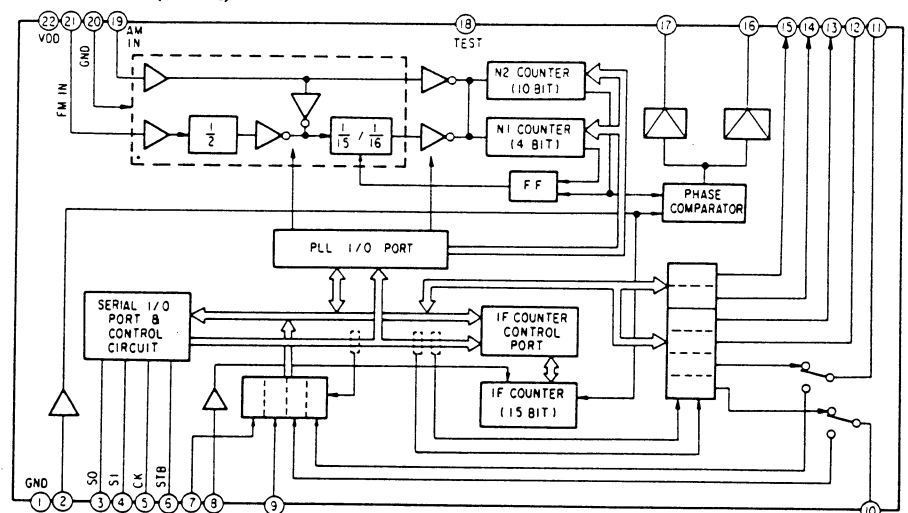
• LB1639 (IC671)



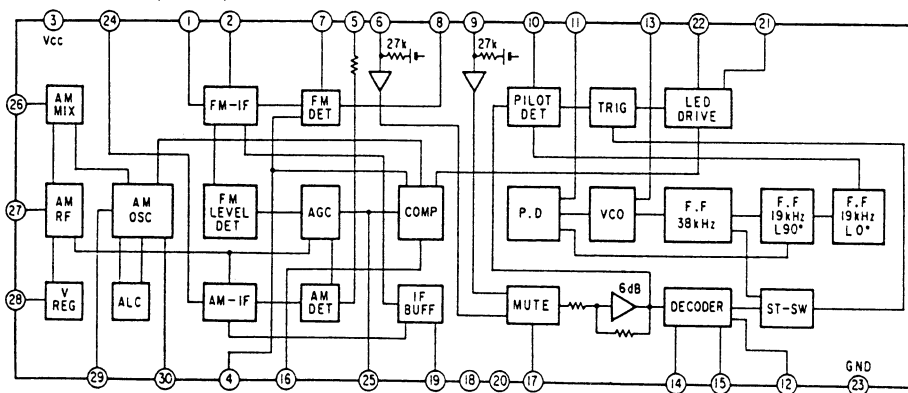
• M5230L-A (IC911)



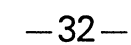
• TC9227P (IC102)



• LA1851N (IC101)



- CND : Canadian
- EA : Saudi Arabia
- WG : West Germany
- IT : Italian



SECTION 5 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.

- Color Indication of Appearance Parts
Example:
(RED) ... KNOB, BALANCE (WHITE)

↑
Cabinet's Color

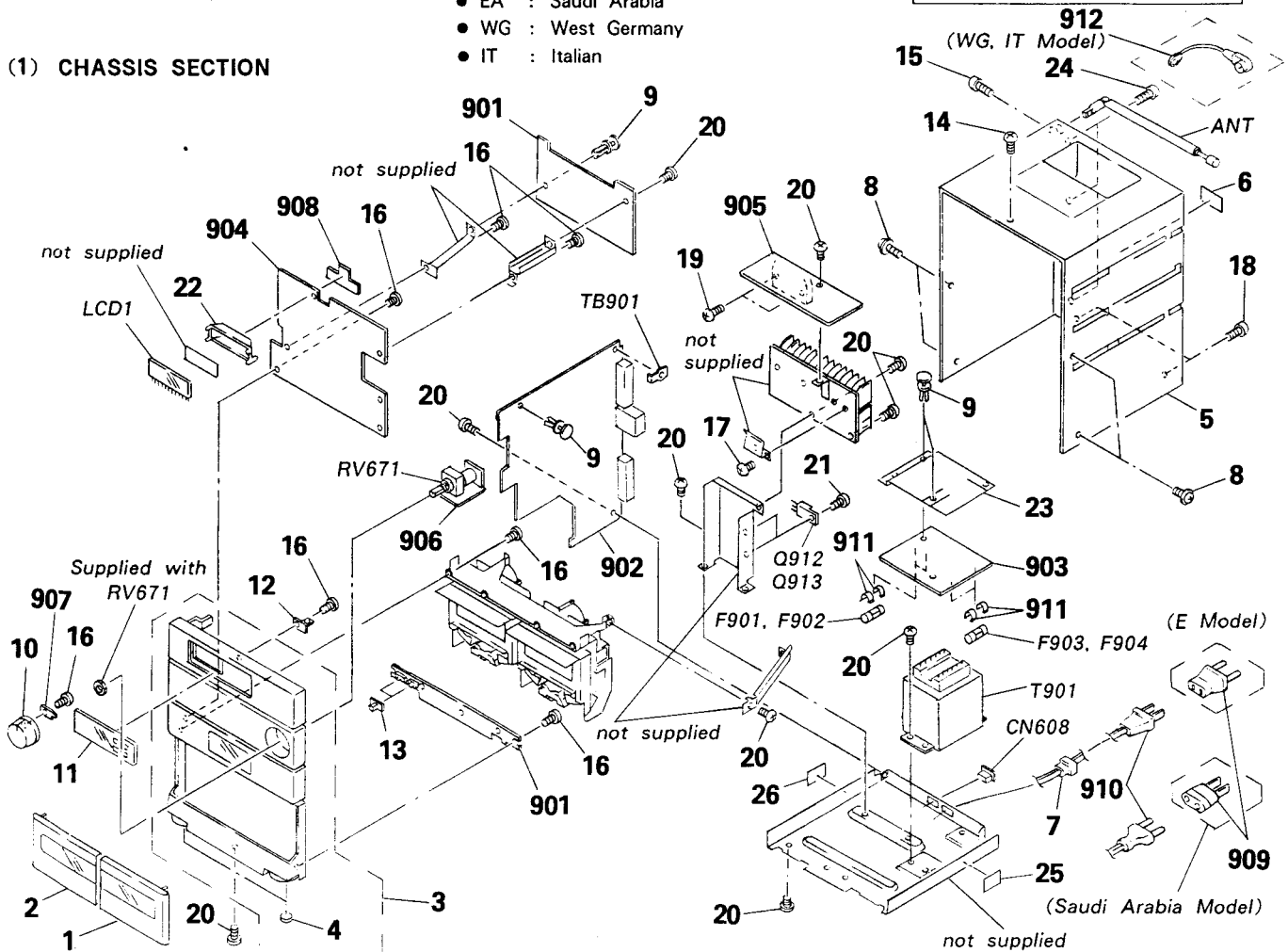
↑
Parts' Color

- EA : Saudi Arabia
- WG : West Germany
- IT : Italian

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

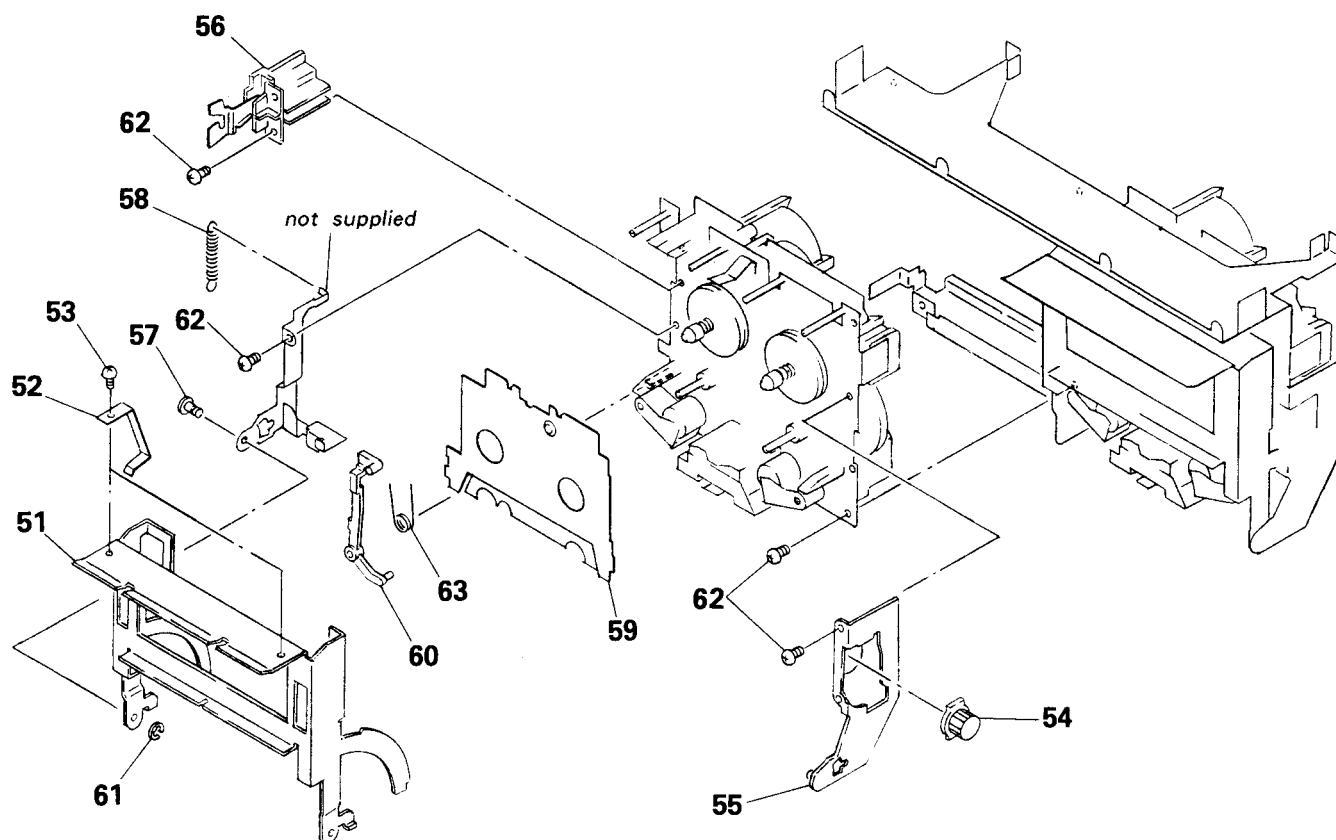
Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

(1) CHASSIS SECTION



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	X-4915-482-1	LID (RIGHT) ASSY, CASSETTE		22	*4-928-665-01	HOUSE (LCD), WRITING	
2	X-4915-483-1	LID (LEFT) ASSY, CASSETTE		23	*4-931-170-01	COVER (POWER)	
3	X-4915-486-1	(Canadian, AEP, WG, IT) ... PANEL ASSY		24	7-685-647-79	SCREW + BVTP 3 x 10 TYPE2 N-S	
	X-4915-487-1	(E, EA) ... PANEL ASSY		25	3-831-441-XX	SPACER	
4	3-319-288-01	FOOT		26	4-931-174-01	SPACER	
5	X-4915-488-1	(WG, IT) ... CASE ASSY		901	*A-4333-198-A	MOUNTED PCB, TC (MAIN)	
	X-4915-489-1	(AEP, Canadian) ... CASE ASSY		902	*A-4333-179-A	(Canadian) ... MOUNTED PCB, MAIN	
	X-4915-490-1	(E, EA) ... CASE ASSY			*A-4333-180-A	(AEP) ... MOUNTED PCB, MAIN	
6	*4-931-159-01	(E, EA) ... LABEL, MODEL NUMBER			*A-4333-181-A	(WG) ... MOUNTED PCB, MAIN	
	*4-931-160-01	(WG) ... LABEL, MODEL NUMBER			*A-4333-182-A	(IT) ... MOUNTED PCB, MAIN	
	*4-931-161-01	(IT) ... LABEL, MODEL NUMBER			*A-4333-183-A	(E, EA) ... MOUNTED PCB, MAIN	
	*4-931-162-01	(AEP) ... LABEL, MODEL NUMBER		903	*1-631-322-11	PC BOARD, TRANSFORMER	
	*4-931-163-01	(Canadian) ... LABEL, MODEL NUMBER		904	*A-4333-188-A	(Canadian) ... MOUNTED PCB, CONTROL	
7	3-703-244-02	(Canadian, AEP, WG, IT, EA) ... BUSHING (2104), CORD			*A-4333-189-A	(AEP) ... MOUNTED PCB, CONTROL	
	3-703-571-00	(E) ... BUSHING (S) (4516), CORD			*A-4333-190-A	(WG) ... MOUNTED PCB, CONTROL	
8	3-704-366-01	SCREW (CASE) (M3X8)			*A-4333-191-A	(IT) ... MOUNTED PCB, CONTROL	
9	4-812-134-31	RIVET NYLON, 3.5			*A-4333-192-A	(E, EA) ... MOUNTED PCB, CONTROL	
10	4-922-790-01	KNOB (VOLUME)		905	*A-4333-193-A	MOUNTED PCB, POWER	
11	4-928-655-01	PLATE (ST), ORNAMENTAL		906	*1-631-326-11	PC BOARD, VR	
12	*4-928-660-01	BRACKET (CASE)		907	*1-631-328-11	PC BOARD, VR LED	
13	4-931-135-01	KNOB, SLIDE SWITCH		908	*1-631-327-11	PC BOARD, LAMP	
14	7-682-547-00	SCREW +B 3X6		909	 1-506-409-11	(EA) ... ADAPTOR, CONVERSION	
15	7-682-549-00	SCREW +B 3X10			 1-526-565-00	(E) ... AC PLUG ADAPTOR	
16	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S		910	 1-557-577-11	(Canadian) ... CORD, POWER	
17	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S			 1-574-805-11	(AEP, WG, IT) ... CORD, POWER	
18	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S			 1-574-902-11	(E) ... CORD, POWER	
19	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3		911	*1-533-213-31	HOLDER, FUSE	
20	7-682-547-04	SCREW +BVTT 3X6 (S)		912	*1-562-908-11	(WG, IT) ... CONNECTOR, FEMALE (NO SHIELD)	
21	7-682-548-04	SCREW +BVTT 3X8 (S)		ANT	1-501-270-00	ANTENNA, TELESCOPIC	
				LCD1	1-808-659-11	DISPLAY PANEL, LIQUID CRYSTAL	
				TB901	*4-925-530-01	PLATE, GROUND	

(2) MECHANISM CHASSIS SECTION

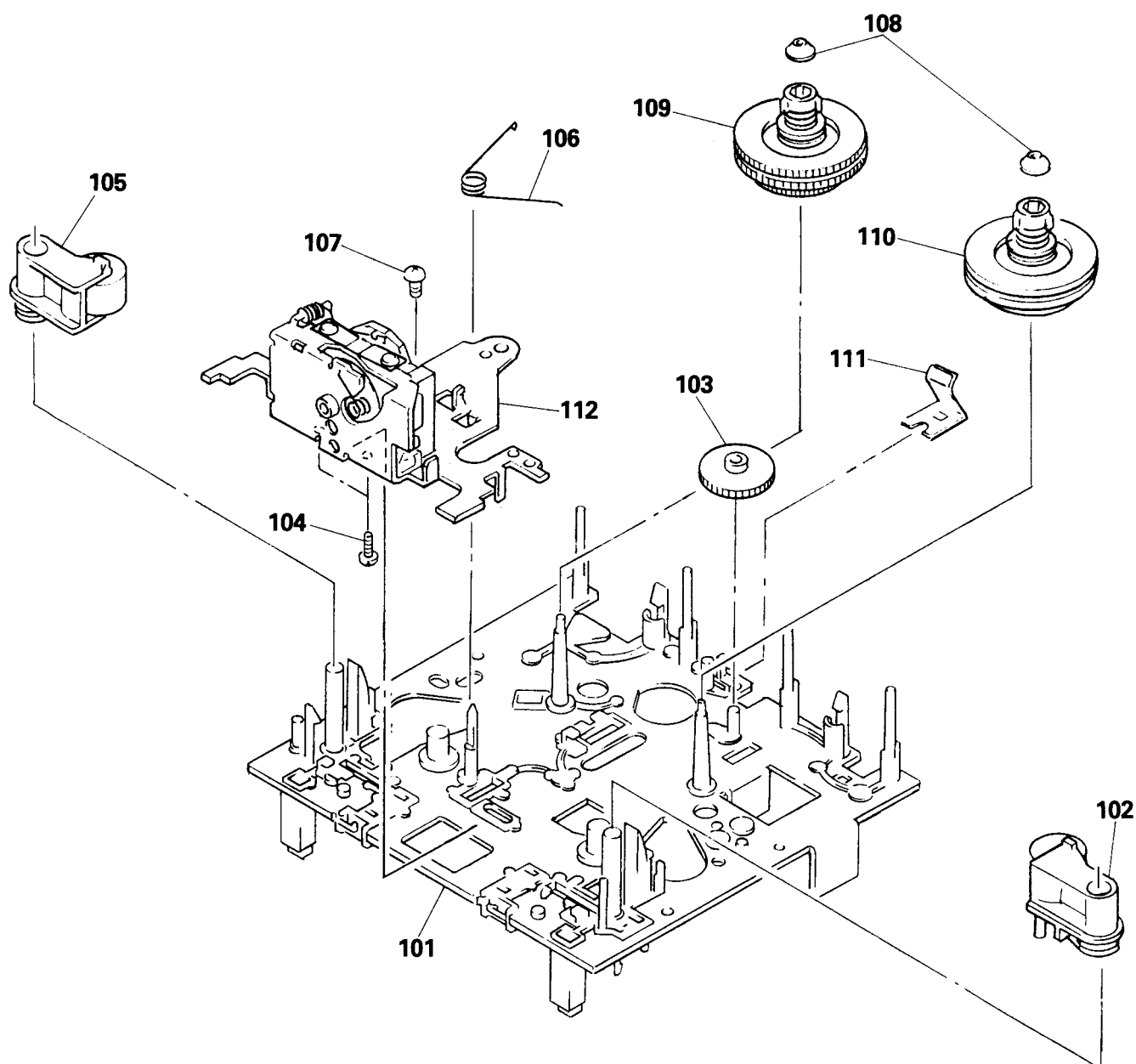


No.	Part No.	Description	Remarks
51	X-4915-485-1	HOLDER ASSY	
52	4-931-129-01	SPRING	
53	7-621-255-10	SCREW +P 2X3	
54	X-3332-464-1	GEAR (DAMPER) ASSY	
55	X-4915-481-1	BRACKET (R) ASSY	
56	X-4915-484-1	GUIDE (EJECT) ASSY	
57	4-931-138-01	SHAFT (HOLDER FITTING L)	

No.	Part No.	Description	Remarks
58	4-931-139-01	SPRING (LOADING), TENSION	
59	4-931-143-01	RETAINER, CASSETTE	
60	4-931-145-01	LEVER (EJECT SAFETY)	
61	7-624-105-04	RETAINING, RING E-2.3	
62	7-621-770-87	SCREW +BVT 2.6X5 (S)	
63	3-343-477-01	SPRING, TORSION (EJECT SAFETY)	

(3) MECHANISM SECTION 1

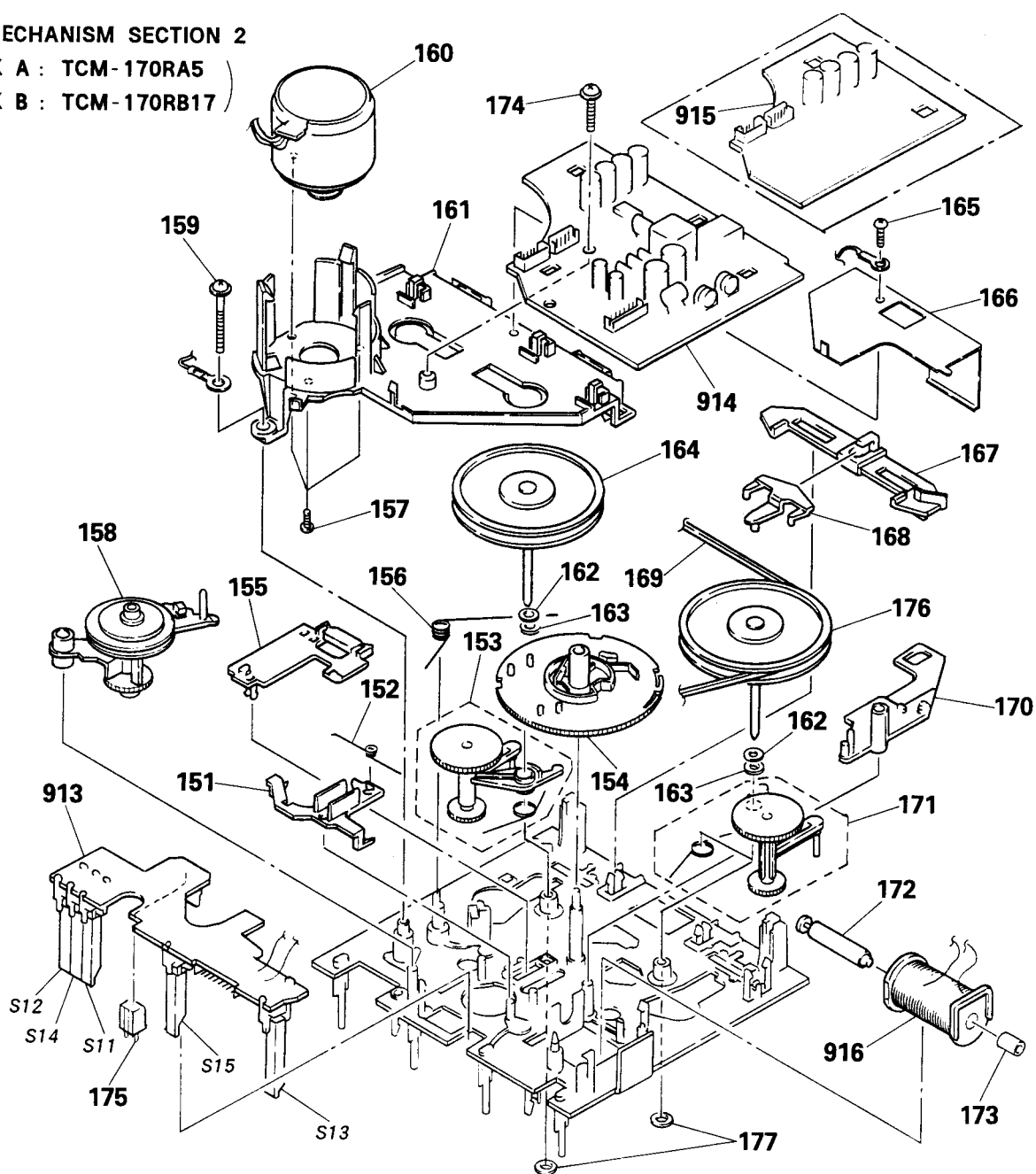
(DECK A : TCM-170RA5)
 (DECK B : TCM-170RB17)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
101	*X-3343-418-1	CHASSIS ASSY, MECHANICAL		108	3-343-439-01	CAP (REEL TABLE)	
102	X-3343-402-1	LEVER (PINCH LEVER FWD) ASSY		109	X-3343-415-1	TABEL (REV) ASSY, REEL	
103	3-343-411-01	GEAR (FF GEAR)		110	X-3343-401-1	TABEL ASSY, REEL	
104	7-686-102-19	SCREW +P 2X4 NON-SLIT TYPE 2		111	3-343-420-01	SPRING, LEAF	
105	X-3343-403-1	LEVER (PINCH LEVER REV) ASSY		112	A-2108-129-A	(DECK-A)...CHASSIS ASSY, HEAD	
106	3-343-401-01	SPRING, TORSION			A-2108-130-A	(DECK-B)...CHASSIS ASSY, HEAD	
107	7-621-773-86	SCREW +BVT 2.6X4 (S)					

(4) MECHANISM SECTION 2

(DECK A : TCM-170RA5)
(DECK B : TCM-170RB17)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
151	3-343-453-01	SLIDER (BRAKE PLATE)		166	3-343-480-01	PLATE, SHIELD	
152	3-343-429-01	SPRING, TORSION		167	*3-343-457-01	SLIDER (REVERSE SLIDER)	
153	X-3343-406-1	LEVER (TU ARM REV) ASSY		168	3-343-462-01	LEVER	
154	3-343-470-01	GEAR (CAM GEAR)		169	3-343-426-02	BELT (CAPSTAN BELT SQUARE)	
155	*3-343-461-01	SLIDER		170	3-343-493-01	LEVER (PM LEVER)	
156	3-343-430-01	SPRING, TORSION		171	X-3343-405-1	LEVER (TU ARM FWD) ASSY	
157	7-627-556-28	SCREW +P 2.6X3.5		172	*3-343-425-01	ARBOR (MOVABLE IRON ARBOR), IRON	
158	X-3343-414-1	LAVER (FR ARM) ASSY		173	*3-343-424-01	ARBOR (FIXED IRON ARBOR), IRON	
159	3-343-403-01	SCREW (PTTWH 2X18)		174	3-343-404-01	SCREW (PTPWH 2X10)	
160	X-3343-408-1	MOTOR ASSY		175	*3-343-419-01	HOLDER (S SENSER A)	
161	*X-3343-407-1	BASE (THRUST RETAINER) ASSY		176	X-3343-431-1	FLYWHEEL (REV) COMPLETE ASSY	
162	4-605-835-11	WASHER (2.6), POLYSLIDER		177	3-343-473-01	WASHER, NYLON	
163	3-307-482-00	WASHER, LUMILER		913	*1-624-148-11	PC BOARD, LEAF SW	
164	X-3343-429-1	FLYWHEEL COMPLETE ASSY		914	*1-624-146-11	(DECK B)...PC BOARD, MD-B	
165	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT		915	*1-624-147-11	PC BOARD, MD-A	
				916	1-454-456-11	SOLENOID, PLUNGER	

SECTION 6

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:MF: μ F, PF: μ F.**RESISTORS**

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORSIn each case, U: μ , for example:
 UA....: μ A...., UPA....: μ PA....,
 UPC....: μ PC, UPD....: μ PD...

- EA : Saudi Arabia
- WG : West Germany
- IT : Italian

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
901	*A-4333-198-A	MOUNTED PCB, TC (MAIN)	C63A	1-124-282-00	ELECT 22MF 20% 25V
902	*A-4333-179-A	(Canadian)...MOUNTED PCB, MAIN	C63B	1-124-282-00	ELECT 22MF 20% 25V
	*A-4333-180-A	(AEP).....MOUNTED PCB, MAIN	C64	1-162-288-31	CERAMIC 330PF 10% 50V
	*A-4333-181-A	(WG).....MOUNTED PCB, MAIN	C65	1-136-273-91	FILM 75PF 5% 630V
	*A-4333-182-A	(IT).....MOUNTED PCB, MAIN	C67	1-162-209-31	CERAMIC 27PF 5% 50V
	*A-4333-183-A	(E,EA).....MOUNTED PCB, MAIN	C68A	1-162-217-31	CERAMIC 56PF 5% 50V
903	*1-631-322-11	PC BOARD, TRANSFORMER	C68B	1-162-217-31	CERAMIC 56PF 5% 50V
904	*A-4333-188-A	(Canadian)...MOUNTED PCB, CONTROL	C81A	1-126-101-11	ELECT 100MF 20% 16V
	*A-4333-189-A	(AEP).....MOUNTED PCB, CONTROL	C81B	1-126-101-11	ELECT 100MF 20% 16V
	*A-4333-190-A	(WG).....MOUNTED PCB, CONTROL	C82A	1-126-101-11	ELECT 100MF 20% 16V
	*A-4333-191-A	(IT).....MOUNTED PCB, CONTROL	C82B	1-126-101-11	ELECT 100MF 20% 16V
	*A-4333-192-A	(E,EA).....MOUNTED PCB, CONTROL	C83	1-124-499-11	ELECT 1MF 20% 50V
905	*A-4333-193-A	MOUNTED PCB, POWER	C84	1-124-925-11	ELECT 2.2MF 20% 50V
906	*1-631-326-11	PC BOARD, VR	C85	1-130-480-00	MYLAR 0.0056MF 5% 50V
907	*1-631-328-11	PC BOARD, VR LED	C86	1-130-476-00	MYLAR 0.0027MF 5% 50V
908	*1-631-327-11	PC BOARD, LAMP	C87	1-130-476-00	MYLAR 0.0027MF 5% 50V
909	Δ 1-506-409-11	(EA)....ADAPTOR, CONVERSION	C88	1-136-562-11	FILM 0.0082MF 5% 630V
	Δ 1-526-565-00	(E)....AC PLUG ADAPTOR	C001	1-162-195-31	(AEP,E,EA)...CERAMIC 4.7PF 10% 50V
910	Δ 1-557-577-11	(Canadian)....CORD, POWER	C002	1-124-499-11	ELECT 1MF 20% 50V
	Δ 1-574-805-11	(AEP,WG,IT)...CORD, POWER	C003	1-161-379-00	CERAMIC 0.01MF 30% 16V
	Δ 1-574-902-11	(E).....CORD, POWER	C005	1-124-438-00	ELECT 1MF 20% 50V
911	*1-533-213-31	HOLDER, FUSE	C006	1-161-379-00	CERAMIC 0.01MF 30% 16V
912	*1-562-908-11	(WG,IT)...CONNECTOR, FEMALE(NO SHIELD)	C007	1-164-159-11	CERAMIC 0.1MF 50V
913	*1-624-148-11	PC BOARD, LEAF SW	C008	1-164-159-11	(AEP,WG,IT,E,EA) ...CERAMIC 0.1MF 50V
914	*1-624-146-11	(DECK B)...PC BOARD, MD-B	C009	1-164-159-11	(E,EA)....CERAMIC 0.1MF 50V
915	*1-624-147-11	PC BOARD, MD-A	C010	1-161-379-00	(E,EA)....CERAMIC 0.01MF 30% 16V
916	1-454-456-11	SOLENOID, PLUNGER	C011	1-164-159-11	(AEP,WG,IT,E,EA) ...CERAMIC 0.1MF 50V
ANT	1-501-270-00	ANTENNA, TELESCOPIC	C012	1-161-379-00	(E,EA)....CERAMIC 0.01MF 30% 16V
C41A	1-162-289-31	CERAMIC 390PF 10% 50V	C013	1-162-288-31	CERAMIC 330PF 10% 50V
C41B	1-162-289-31	CERAMIC 390PF 10% 50V	C014	1-164-159-11	CERAMIC 0.1MF 50V
C42A	1-136-157-00	FILM 0.022MF 5% 50V	C019	1-102-531-91	(AEP,WG)...CERAMIC 150PF 5% 50V
C42B	1-136-157-00	FILM 0.022MF 5% 50V	C019	1-102-905-91	(IT).....CERAMIC 130PF 5% 50V
C43A	1-124-282-00	ELECT 22MF 20% 25V	C019	1-102-963-00	(E,EA)....CERAMIC 33PF 5% 50V
C43B	1-124-282-00	ELECT 22MF 20% 25V	C021	1-104-059-11	(AEP,WG,IT)...STYROL 180PF 5% 50V
C44	1-162-288-31	CERAMIC 330PF 10% 50V	C021	1-130-479-00	(E,EA)....MYLAR 0.0047MF 5% 50V
C45	1-136-273-91	FILM 75PF 5% 630V	C022	1-162-199-31	(E,EA)....CERAMIC 10PF 5% 50V
C47	1-162-209-31	CERAMIC 27PF 5% 50V	C023	1-161-379-00	(E,EA)....CERAMIC 0.01MF 30% 16V
C48A	1-162-217-31	CERAMIC 56PF 5% 50V	C024	1-102-959-00	(E,EA)....CERAMIC 22PF 5% 50V
C48B	1-162-217-31	CERAMIC 56PF 5% 50V	C025	1-136-154-00	(E,EA)....FILM 0.012MF 5% 50V
C61A	1-162-289-31	CERAMIC 390PF 10% 50V	C026	1-136-173-00	(E,EA)....FILM 0.47MF 5% 50V
C61B	1-162-289-31	CERAMIC 390PF 10% 50V	C030	1-164-159-11	(E,EA)....CERAMIC 0.1MF 50V
C62A	1-136-157-00	FILM 0.022MF 5% 50V			
C62B	1-136-157-00	FILM 0.022MF 5% 50V			

Ref.No.	Part No.	Description				
C031	1-161-379-00	(E,EA)...CERAMIC	0.01MF	30%	16V	
C032	1-161-379-00	(E,EA)...CERAMIC	0.01MF	30%	16V	
C034	1-161-379-00	(E,EA)...CERAMIC	0.01MF	30%	16V	
C035	1-161-379-00	(E,EA)...CERAMIC	0.01MF	30%	16V	
C036	1-161-379-00	(E,EA)...CERAMIC	0.01MF	30%	16V	
C038	1-162-215-31	CERAMIC	47PF	5%	50V	
C039	1-101-888-91	(IT).....CERAMIC	68PF	5%	50V	
C039	1-102-815-91	(AEP,WG)...CERAMIC	110PF	5%	50V	
C039	1-162-207-31	(E,EA).....CERAMIC	22PF	5%	50V	
C040	1-161-379-00	(AEP,WG,IT)...CERAMIC	0.01PF	30%	16V	
C041	1-162-295-11	(AEP,WG,IT)...CERAMIC	1500PF	30%	16V	
C042	1-102-120-91	(AEP,WG,IT)...CERAMIC	0.0018MF	10%	50V	
C101	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C102	1-126-103-11	ELECT	470MF	20%	16V	
C103	1-123-875-11	ELECT	10MF	20%	50V	
C104	1-162-290-31	CERAMIC	470PF	10%	50V	
C105	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C106	1-123-875-11	ELECT	10MF	20%	50V	
C107	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C108	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C110	1-124-925-11	ELECT	2.2MF	20%	50V	
C111	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C112	1-136-153-00	FILM	0.01MF	5%	50V	
C113	1-162-211-31	(Canadian,AEP,E,EA) ...CERAMIC	33PF	5%	50V	
C113	1-162-291-11	(WG,IT)...CERAMIC	560PF	10%	50V	
C114	1-162-282-11	(WG,IT)...CERAMIC	100PF	10%	50V	
C115	1-124-499-11	ELECT	1MF	20%	50V	
C116	1-124-499-11	ELECT	1MF	20%	50V	
C117	1-124-499-11	ELECT	1MF	20%	50V	
C118	1-124-252-00	ELECT	0.33MF	20%	50V	
C119	1-162-288-31	(AEP,E,EA)...CERAMIC	330PF	10%	50V	
C119	1-162-289-11	(WG,IT).....CERAMIC	390PF	10%	50V	
C120	1-162-288-31	(AEP,E,EA)...CERAMIC	330PF	10%	50V	
C120	1-162-289-11	(WG,IT).....CERAMIC	390PF	10%	50V	
C121	1-124-499-11	ELECT	1MF	20%	50V	
C122	1-124-438-00	ELECT	1MF	20%	50V	
C123	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C124	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C125	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C126	1-123-875-11	ELECT	10MF	20%	50V	
C127	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C128	1-124-925-11	ELECT	2.2MF	20%	50V	
C129	1-124-463-00	ELECT	0.1MF	20%	50V	
C130	1-124-477-11	ELECT	47MF	20%	16V	
C131	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C132	1-136-157-00	FILM	0.022MF	5%	50V	
C133	1-164-159-11	CERAMIC	0.1MF		50V	
C134	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C135	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C136	1-162-282-31	CERAMIC	100PF	10%	50V	
C137	1-124-902-91	(AEP,WG,IT)...ELECT	0.47MF	20%	50V	
C138	1-136-157-91	(AEP,WG,IT)...FILM	0.022MF	5%	50V	
C139	1-136-157-91	(AEP,WG,IT)...FILM	0.022MF	5%	50V	
C140	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C141	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C142	1-136-155-00	FILM	0.015MF	5%	50V	
C143	1-136-155-00	FILM	0.015MF	5%	50V	
C151	1-124-477-11	ELECT	47MF	20%	16V	
C152	1-161-379-00	(WG,IT)...CERAMIC	0.01MF	30%	16V	
C202	1-123-875-11	ELECT	10MF	20%	50V	
C203	1-124-499-11	ELECT	1MF	20%	50V	
C204	1-162-205-31	CERAMIC	18PF	5%	50V	
C205	1-162-205-31	CERAMIC	18PF	5%	50V	
C206	1-125-486-11	CAP,DOUBLE LAYERS	0.22F		5.5V	
C210	1-164-159-11	CERAMIC	0.1MF		50V	
C301	1-136-161-00	FILM	0.047MF	5%	50V	
C302	1-123-875-11	ELECT	10MF	20%	50V	
C303	1-161-375-00	CERAMIC	0.0022MF	30%	16V	
C304	1-124-446-11	ELECT	47MF	20%	10V	
C305	1-162-291-31	CERAMIC	560PF	10%	50V	
C306	1-131-587-11	TANTALUM	0.68MF	10%	35V	
C307	1-124-282-00	ELECT	22MF	20%	25V	
C311	1-124-446-11	ELECT	47MF	20%	10V	
C312	1-124-446-11	ELECT	47MF	20%	10V	
C321	1-124-927-11	ELECT	4.7MF	20%	50V	
C322	1-136-169-00	FILM	0.22MF	5%	50V	
C323	1-126-162-11	ELECT	3.3MF	20%	50V	
C324	1-123-875-11	ELECT	10MF	20%	50V	
C352	1-124-120-11	ELECT	220MF	20%	16V	
C353	1-124-902-00	ELECT	0.47MF	20%	50V	
C356	1-124-927-11	ELECT	4.7MF	20%	50V	
C359	1-124-446-11	ELECT	47MF	20%	10V	
C360	1-124-446-11	ELECT	47MF	20%	10V	
C361	1-124-499-11	ELECT	1MF	20%	50V	
C362	1-123-875-11	ELECT	10MF	20%	50V	
C363	1-123-875-11	ELECT	10MF	20%	50V	
C364	1-136-553-11	FILM	0.0015MF	5%	630V	
C365	1-136-554-11	FILM	0.0018MF	5%	630V	
C401	1-136-161-00	FILM	0.047MF	5%	50V	
C402	1-123-875-11	ELECT	10MF	20%	50V	
C403	1-161-375-00	CERAMIC	0.0022MF	30%	16V	
C404	1-124-446-11	ELECT	47MF	20%	10V	
C405	1-162-291-31	CERAMIC	560PF	10%	50V	
C406	1-131-587-11	TANTALUM	0.68MF	10%	35V	
C407	1-124-282-00	ELECT	22MF	20%	25V	
C421	1-124-927-11	ELECT	4.7MF	20%	50V	
C422	1-136-169-00	FILM	0.22MF	5%	50V	
C423	1-126-162-11	ELECT	3.3MF	20%	50V	
C424	1-123-875-11	ELECT	10MF	20%	50V	
C451	1-162-217-31	CERAMIC	56PF	5%	50V	
C452	1-136-157-00	FILM	0.022MF	5%	50V	
C453	1-124-925-11	ELECT	2.2MF	20%	50V	
C454	1-124-446-11	ELECT	47MF	20%	10V	
C455	1-124-446-11	ELECT	47MF	20%	10V	
C456	1-124-925-11	ELECT	2.2MF	20%	50V	
C501	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C502	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C503	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C504	1-124-927-11	ELECT	4.7MF	20%	50V	
C505	1-126-176-11	ELECT	220MF	20%	10V	
C506	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C507	1-124-446-11	ELECT	47MF	20%	10V	
C508	1-124-443-00	ELECT	100MF	20%	10V	
C509	1-161-494-00	CERAMIC	0.022MF		25V	

Ref.No.	Part No.	Description			
C510	1-161-494-00	CERAMIC	0.022MF		25V
C511	1-124-446-11	ELECT	47MF	20%	10V
C512	1-124-925-11	ELECT	2.2MF	20%	50V
C513	1-124-925-11	ELECT	2.2MF	20%	50V
C514	1-124-446-11	ELECT	47MF	20%	10V
C515	1-164-159-11	CERAMIC	0.1MF		50V
C516	1-161-494-00	CERAMIC	0.022MF		25V
C517	1-161-494-00	CERAMIC	0.022MF		25V
C518	1-123-875-11	ELECT	10MF	20%	50V
C519	1-164-159-11	CERAMIC	0.1MF		50V
C520	1-136-173-00	FILM	0.47MF	5%	50V
C521	1-164-159-11	CERAMIC	0.1MF		50V
C522	1-162-282-31	CERAMIC	100PF	10%	50V
C601	1-164-159-11	CERAMIC	0.1MF		50V
C602	1-123-875-11	ELECT	10MF	20%	50V
C603	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C604	1-124-925-11	ELECT	2.2MF	20%	50V
C605	1-124-499-11	ELECT	1MF	20%	50V
C606	1-126-096-11	ELECT	10MF	20%	25V
C671	1-124-443-00	ELECT	100MF	20%	10V
C672	1-123-875-11	ELECT	10MF	20%	50V
C673	1-123-875-11	ELECT	10MF	20%	50V
C691	1-126-103-11	ELECT	470MF	20%	16V
C692	1-126-103-11	ELECT	470MF	20%	16V
C693	1-124-499-11	ELECT	1MF	20%	50V
C697	1-162-282-31	CERAMIC	100PF	10%	50V
C698	1-162-282-31	CERAMIC	100PF	10%	50V
C699	1-136-173-00	FILM	0.47MF	5%	50V
C701	1-162-282-31	CERAMIC	100PF	10%	50V
C702	1-162-288-31	(WG,IT)...CERAMIC	330PF	10%	50V
C703	1-162-282-31	CERAMIC	100PF	10%	50V
C704	1-162-282-31	CERAMIC	100PF	10%	50V
C706	1-162-282-31	(Canadian,AEP,E,EA) ...CERAMIC	100PF	10%	50V
C706	1-162-288-31	(WG,IT)...CERAMIC	330PF	10%	50V
C707	1-124-254-00	ELECT	0.68MF	20%	50V
C708	1-130-480-00	MYLAR	0.0056MF	5%	50V
C709	1-130-475-00	MYLAR	0.0022MF	5%	50V
C710	1-123-875-11	ELECT	10MF	20%	50V
C721	1-162-282-31	CERAMIC	100PF	10%	50V
C722	1-162-282-31	CERAMIC	100PF	10%	50V
C723	1-123-875-11	ELECT	10MF	20%	50V
C731	1-162-286-31	CERAMIC	220PF	10%	50V
C732	1-136-159-00	FILM	0.033MF	5%	50V
C733	1-124-499-11	ELECT	1MF	20%	50V
C734	1-161-379-00	CERAMIC	0.01MF	30%	16V
C735	1-124-464-11	ELECT	0.22MF	20%	50V
C736	1-161-327-00	CERAMIC	0.0033MF	30%	16V
C737	1-164-159-11	CERAMIC	0.1MF		50V
C738	1-162-294-31	CERAMIC	0.001MF	10%	50V
C739	1-161-494-00	CERAMIC	0.022MF		25V
C740	1-162-289-31	CERAMIC	390PF	10%	50V
C741	1-161-329-00	CERAMIC	0.0068MF	30%	16V
C742	1-162-282-31	CERAMIC	100PF	10%	50V
C743	1-162-215-31	CERAMIC	47PF	5%	50V
C744	1-136-163-00	FILM	0.068MF	5%	50V

Ref.No.	Part No.	Description			
C745	1-136-163-00	FILM	0.068MF	5%	50V
C746	1-123-875-11	ELECT	10MF	20%	50V
C751	1-123-875-11	ELECT	10MF	20%	50V
C752	1-162-290-31	CERAMIC	470PF	10%	50V
C753	1-126-233-11	ELECT	22MF	20%	50V
C754	1-124-910-11	ELECT	47MF	20%	35V
C755	1-164-159-11	CERAMIC	0.1MF		50V
C756	1-164-159-11	CERAMIC	0.1MF		50V
C761	1-162-294-31	(WG,IT)...CERAMIC	0.001MF	10%	50V
C762	1-162-290-31	(WG,IT)...CERAMIC	470PF	10%	50V
C771	1-136-165-00	(WG,IT)...FILM	0.1MF	5%	50V
C781	1-162-294-31	CERAMIC	0.001MF	10%	50V
C783	1-162-288-31	CERAMIC	330PF	10%	50V
C784	1-162-284-31	CERAMIC	150PF	10%	50V
C785	1-124-463-00	ELECT	0.1MF	20%	50V
C786	1-161-379-00	CERAMIC	0.01MF	30%	16V
C787	1-161-379-00	CERAMIC	0.01MF	30%	16V
C791	1-161-379-00	CERAMIC	0.01MF	30%	16V
C792	1-161-379-00	CERAMIC	0.01MF	30%	16V
C794	1-161-379-00	CERAMIC	0.01MF	30%	16V
C795	1-124-477-11	ELECT	47MF	20%	16V
C796	1-124-477-11	ELECT	47MF	20%	16V
C797	1-123-875-11	ELECT	10MF	20%	50V
C798	1-124-463-00	ELECT	0.1MF	20%	50V
C801	1-162-282-31	CERAMIC	100PF	10%	50V
C802	1-162-288-31	(WG,IT)...CERAMIC	330PF	10%	50V
C803	1-162-282-31	CERAMIC	100PF	10%	50V
C804	1-162-282-31	CERAMIC	100PF	10%	50V
C806	1-162-282-31	(Canadian,AEP,E,EA) ...CERAMIC	100PF	10%	50V
C806	1-162-288-31	(WG,IT)...CERAMIC	330PF	10%	50V
C807	1-124-254-00	ELECT	0.68MF	20%	50V
C808	1-130-480-00	MYLAR	0.0056MF	5%	50V
C809	1-130-475-00	MYLAR	0.0022MF	5%	50V
C810	1-123-875-11	ELECT	10MF	20%	50V
C821	1-162-282-31	CERAMIC	100PF	10%	50V
C822	1-162-282-31	CERAMIC	100PF	10%	50V
C823	1-123-875-11	ELECT	10MF	20%	50V
C831	1-162-286-31	CERAMIC	220PF	10%	50V
C832	1-136-159-00	FILM	0.033MF	5%	50V
C833	1-124-499-11	ELECT	1MF	20%	50V
C834	1-161-379-00	CERAMIC	0.01MF	30%	16V
C835	1-124-464-11	ELECT	0.22MF	20%	50V
C836	1-161-327-00	CERAMIC	0.0033MF	30%	16V
C837	1-164-159-11	CERAMIC	0.1MF		50V
C838	1-162-294-31	CERAMIC	0.001MF	10%	50V
C839	1-161-494-00	CERAMIC	0.022MF		25V
C840	1-162-289-31	CERAMIC	390PF	10%	50V
C841	1-161-329-00	CERAMIC	0.0068MF	30%	16V
C842	1-162-282-31	CERAMIC	100PF	10%	50V
C843	1-162-215-31	CERAMIC	47PF	5%	50V
C844	1-136-163-00	FILM	0.068MF	5%	50V
C845	1-136-163-00	FILM	0.068MF	5%	50V
C846	1-123-875-11	ELECT	10MF	20%	50V
C851	1-123-875-11	ELECT	10MF	20%	50V

Ref.No.	Part No.	Description			
C852	1-162-290-31	CERAMIC	470PF	10%	50V
C853	1-126-233-11	ELECT	22MF	20%	50V
C854	1-124-910-11	ELECT	47MF	20%	35V
C855	1-164-159-11	CERAMIC	0.1MF		50V
C856	1-164-159-11	CERAMIC	0.1MF		50V
C861	1-162-294-31	(WG,IT)...CERAMIC	0.001MF	10%	50V
C862	1-162-290-31	(WG,IT)...CERAMIC	470PF	10%	50V
C871	1-136-165-00	(WG,IT)...FILM	0.1MF	5%	50V
C891	1-123-875-11	ELECT	10MF	20%	50V
C892	1-123-875-11	ELECT	10MF	20%	50V
C893	1-124-484-11	ELECT	220MF	20%	35V
C894	1-124-484-11	ELECT	220MF	20%	35V
C895	1-123-875-11	ELECT	10MF	20%	50V
C901	1-136-165-00	FILM	0.1MF	5%	50V
C902	1-136-165-00	FILM	0.1MF	5%	50V
C903	1-136-165-00	FILM	0.1MF	5%	50V
C904	1-136-165-00	FILM	0.1MF	5%	50V
C905	1-124-499-11	ELECT	1MF	20%	50V
C911	1-124-618-11	ELECT	2200MF	20%	35V
C912	1-124-618-11	ELECT	2200MF	20%	35V
C913	1-124-927-11	ELECT	4.7MF	20%	50V
C914	1-124-927-11	ELECT	4.7MF	20%	50V
C915	1-123-875-11	ELECT	10MF	20%	50V
C916	1-124-477-11	ELECT	47MF	20%	16V
C917	1-124-477-11	ELECT	47MF	20%	16V
C918	1-124-120-11	ELECT	220MF	20%	16V
C919	1-164-159-11	CERAMIC	0.1MF		50V
C920	1-164-159-11	CERAMIC	0.1MF		50V
C921	1-124-443-00	ELECT	100MF	20%	10V
C922	1-124-443-00	ELECT	100MF	20%	10V
C923	1-164-159-11	CERAMIC	0.1MF		50V
C924	1-164-159-11	CERAMIC	0.1MF		50V
C931	1-123-875-11	ELECT	10MF	20%	50V
C932	1-124-443-00	ELECT	100MF	20%	10V
C951	1-124-563-11	ELECT	2200MF	20%	25V
C952	1-124-477-11	ELECT	47MF	20%	25V
C953	1-124-360-00	ELECT	1000MF	20%	16V
C954	1-123-875-11	ELECT	10MF	20%	50V
C955	1-124-477-11	ELECT	47MF	20%	25V
C956	1-124-472-11	ELECT	470MF	20%	10V
C961	1-161-379-00	(WG,IT)...CERAMIC	0.01MF	30%	16V
C962	1-162-294-31	(WG,IT)...CERAMIC	0.001MF	10%	50V
C963	1-162-294-31	(WG,IT)...CERAMIC	0.001MF	10%	50V
CB701	△1-532-564-00	BREAKER, CIRCUIT			
CB801	△1-532-564-00	BREAKER, CIRCUIT			
CF001	1-567-389-11	FILTER, CERAMIC	10.7MHZ		
CF002	1-567-389-11	(WG,IT)...FILTER, CERAMIC	10.7MHZ		
CF101	1-567-389-11	FILTER, CERAMIC	10.7MHZ		
CN001	*1-566-926-11	SOCKET, CONNECTOR	10P		
CN11A	*1-564-342-11	PIN, CONNECTOR	8P		
CN11B	*1-564-342-61	PIN, CONNECTOR	8P		
CN201	*1-566-924-11	PLUG, CONNECTOR	10P		
CN301	*1-564-506-11	PLUG, CONNECTOR	3P		
CN302	*1-564-337-00	PIN, CONNECTOR	3P		
CN303	*1-564-337-71	PIN, CONNECTOR	3P		
CN304	*1-564-506-11	PLUG, CONNECTOR	3P		
CN305	*1-564-336-00	PIN, CONNECTOR	2P		

Ref.No.	Part No.	Description
CN306	*1-564-505-11	PLUG, CONNECTOR 2P
CN501	*1-564-338-00	PIN, CONNECTOR 4P
CN502	*1-564-337-00	PIN, CONNECTOR 3P
CN503	*1-564-337-61	PIN, CONNECTOR 3P
CN504	*1-564-338-61	PIN, CONNECTOR 4P
CN506	*1-564-510-11	PLUG, CONNECTOR 7P
CN507	*1-564-336-00	PIN, CONNECTOR 2P
CN601	*1-565-350-11	PLUG, CONNECTOR 6P
CN602	*1-565-350-11	PLUG, CONNECTOR 6P
CN603	*1-564-337-00	PIN, CONNECTOR 3P
CN604	*1-564-508-11	PLUG, CONNECTOR 5P
CN605	*1-564-336-00	PIN, CONNECTOR 2P
CN606	*1-564-517-11	PLUG, CONNECTOR 2P
CN607	*1-564-338-71	PIN, CONNECTOR 4P
CN608	1-558-350-31	CORD (WITH CONNECTOR)
CN701	*1-565-349-11	SOCKET, CONNECTOR 6P
CN702	*1-565-349-11	SOCKET, CONNECTOR 6P
CN703	*1-564-523-11	PLUG, CONNECTOR 8P
CN901	*1-564-506-11	PLUG, CONNECTOR 3P
CN902	*1-564-506-11	PLUG, CONNECTOR 3P
CN905	*1-564-321-00	PIN, CONNECTOR 2P
CNP11A	*1-564-501-11	PIN, CONNECTOR 8P
CNP11B	*1-564-501-11	PIN, CONNECTOR 8P
CNP12A	*1-564-337-00	PIN, CONNECTOR 3P
CNP12B	*1-564-337-61	PIN, CONNECTOR 3P
CNP13A	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P
CNP13B	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P
CNP81A	*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P
CNP81B	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P
CNP82A	*1-564-339-00	PIN, CONNECTOR 5P
CNP82B	*1-564-339-61	PIN, CONNECTOR 5P
CNP83	*1-564-338-61	PIN, CONNECTOR 4P
CNP84	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P
CP601	8-749-920-83	IC GP1U52XB
CT001	1-141-227-00	(AEP,WG,IT,E,EA)...CAP, TRIMMER 20PF
CT002	1-141-227-00	(E,EA)...CAP, TRIMMER 20PF
CT003	1-141-227-00	(E,EA)...CAP, TRIMMER 20PF
CT004	1-141-227-00	(E,EA).....CAP, TRIMMER 20PF
CT005	1-141-227-00	(AEP,WG,IT)...CAP, TRIMMER 20PF
D11A	8-719-940-76	DIODE 1SS132
D11B	8-719-940-76	DIODE 1SS132
D81	8-719-940-76	DIODE 1SS132
D001	8-719-923-64	(E,EA).....DIODE KV1236D
D002	8-719-923-64	(AEP,WG,IT)...DIODE KV1236D
D003	8-719-000-26	(AEP,WG,IT,E,EA)...DIODE US1060M
D004	8-719-903-27	(E,EA)...DIODE 1SS168
D005	8-719-000-26	(E,EA)...DIODE US1060M
D006	8-719-000-26	(AEP,WG,IT,E,EA)...DIODE US1060M
D007	8-719-903-27	(E,EA)...DIODE 1SS168
D008	8-719-903-27	(E,EA)...DIODE 1SS168
D009	8-719-000-26	(E,EA)...DIODE US1060M
D010	8-719-903-27	(E,EA)...DIODE 1SS168
D011	8-719-000-26	(E,EA)...DIODE US1060M

Note:
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
D012	8-719-903-27	(E,EA)...DIODE 1SS168
D013	8-719-000-26	(E,EA)...DIODE US1060M
D014	8-719-000-26	(E,EA)...DIODE US1060M
D015	8-719-903-27	(E,EA)...DIODE 1SS168
D201	8-719-000-26	(AEP,E,EA)...DIODE US1060M
D202	8-719-000-26	(AEP,E,EA)...DIODE US1060M
D203	8-719-000-26	(Canadian,AEP,WG)...DIODE US1060M
D204	8-719-000-26	(IT)...DIODE US1060M
D205	8-719-000-26	DIODE US1060M
D207	8-719-000-26	DIODE US1060M
D208	8-719-000-26	DIODE US1060M
D209	8-719-000-26	DIODE US1060M
D210	8-719-000-26	DIODE US1060M
D211	8-719-000-26	DIODE US1060M
D214	8-719-000-26	(AEP,WG,E,EA)...DIODE US1060M
D215	8-719-000-26	(IT)...DIODE US1060M
D216	8-719-000-26	(Canadian,AEP,WG)...DIODE US1060M
D351	8-719-000-90	DIODE UZL-7M3
D352	8-719-000-26	DIODE US1060M
D451	8-719-000-26	DIODE US1060M
D501	8-719-200-77	DIODE 10E2N
D502	8-719-200-77	DIODE 10E2N
D503	8-719-000-26	DIODE US1060M
D504	8-719-000-90	DIODE UZL-7M3-TP
D506	8-719-200-77	DIODE 10E2N
D507	8-719-000-26	DIODE US1060M
D571A	8-719-979-46	LED MPR4878K-247 (HIGH)
D571B	8-719-301-39	LED SEL2210S-D (VOLUME)
D572	8-719-979-46	LED MPR4878K-247 (NORMAL)
D573	8-719-979-44	LED MBG4878K-248 (AMS/BS)
D574	8-719-979-44	LED MBG4878K-248 (DECK A:REV)
D575	8-719-979-44	LED MBG4878K-248 (DECK A:FWD)
D576	8-719-979-45	LED MAY4878K-M-249 (DECK B:PAUSE)
D577	8-719-979-46	LED MPR4878K-247 (DECK B:REC)
D578	8-719-979-44	LED MBG4878K-248 (DECK B:FWD)
D579	8-719-979-44	LED MBG4878K-248 (DECK B:REV)
D601	8-719-000-26	DIODE US1060M
D602	8-719-000-26	DIODE US1060M
D603	8-719-000-26	DIODE US1060M
D604	8-719-000-26	DIODE US1060M
D605	8-719-000-26	DIODE US1060M
D606	8-719-000-26	DIODE US1060M
D611	8-719-303-13	LED SEL1210W (STANDBY)
D612	8-719-303-13	LED SEL1210W (TAPE)
D613	8-719-303-13	LED SEL1210W (CD)
D614	8-719-303-13	LED SEL1210W (TUNER)
D615	8-719-303-13	LED SEL1210W (PHONO)
D616	8-719-303-59	LED SEL1910W (SAT)
D617	8-719-303-59	LED SEL1910W (SAT)
D691	8-719-000-26	DIODE US1060M
D692	8-719-000-26	DIODE US1060M
D791	8-719-000-26	DIODE US1060M
D901	8-719-312-09	DIODE RBA-402
D902	8-719-200-77	DIODE 10E2N
D903	8-719-200-77	DIODE 10E2N
D904	8-719-000-26	DIODE US1060M
D905	8-719-000-26	DIODE US1060M
D911	8-719-000-26	DIODE US1060M

Ref.No.	Part No.	Description
D912	8-719-200-77	DIODE 10E2N
D913	1-807-913-21	DIODE 11EQS04
D914	1-807-913-21	DIODE 11EQS04
D915	8-719-200-77	DIODE 10E2N
D951	8-719-001-73	DIODE UZL-12M2
D952	8-719-933-41	DIODE HZS6C3L
F901	△1-532-215-00	(AEP,WG,IT,E,EA)...FUSE, TIME-LAG(0.8A)
F901	△1-532-555-11	(Canadian)...FUSE, GLASS TUBE (1.6A)
F902	△1-532-215-00	(E,EA)...FUSE, TIME-LAG (0.8A)
F903	△1-532-285-00	(AEP,WG,IT,E,EA)...FUSE, TIME-LAG (1.25A)
F903	△1-532-570-11	(Canadian)...FUSE, GLASS TUBE (1.25A)
F904	△1-532-285-00	(AEP,WG,IT,E,EA)...FUSE, TIME-LAG (1.25A)
F904	△1-532-570-11	(Canadian)...FUSE, GLASS TUBE (1.25A)
FE001	1-465-006-11	(Canadian,AEP,E,EA)...FRONT END (FM) (2 GANG)
FE001	1-465-007-11	(WG,IT)...FRONT END (FM)(4 GANG)
FL101	1-527-799-11	(WG,IT)...FILTER, CERAMIC
FL102	1-235-164-00	FILTER, LOW PASS
FL103	1-235-164-00	FILTER, LOW PASS
IC81A	8-759-111-44	IC UPC4570C-1
IC81B	8-759-111-44	IC UPC4570C-1
IC101	8-759-821-45	IC LA1851N
IC102	8-759-231-01	IC TC9227P
IC201	8-759-234-33	IC TC9306F-044
IC351	8-759-040-53	IC MC14053BCP
IC352	8-752-031-67	IC CXA1100P
IC353	8-752-033-61	IC CXA1198AP
IC354	8-759-208-06	IC TC14051BPHB
IC355	8-759-601-43	IC M4066BP
IC451	8-759-945-58	IC RC4558P
IC501	8-759-632-54	IC M50964-212SP
IC601	8-759-632-01	IC M50725-116SP
IC671	8-759-820-62	IC LB1639
IC691	8-759-600-02	IC M5218L
IC731	8-759-602-04	IC M5226P
IC781	8-759-600-02	IC M5218L
IC791	8-759-600-02	IC M5218L
IC792	8-759-208-08	IC TC14052BPHB
IC793	8-759-600-02	IC M5218L
IC831	8-759-602-04	IC M5226P
IC891	8-749-900-95	IC STK4122MK2
IC911	8-759-602-66	IC M5230L-A
IC912	8-759-605-00	IC M5F78M07
IC913	8-759-604-95	IC M5F79M07
IC931	8-759-604-29	IC M5F7805
IFT101	1-404-807-11	TRANSFORMER, DISCRIMINATOR
IFT102	1-404-713-11	TRANSFORMER, IF
J791	1-565-259-11	JACK, PIN 4P (CD L/R,PHONO L/R)
J792	1-562-837-21	JACK (MIC)
J793	1-562-837-11	JACK (HEADPHONES)
L41	1-410-780-11	INDUCTOR 27MMH
L61	1-410-780-11	INDUCTOR 27MMH
L001	1-406-205-11	(AEP,WG,IT,E,EA)...COIL, SWI
L002	1-402-411-11	(E,EA)...COIL (ANT.SWI)

Note:

The components identified by mark **△** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

Note:

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Ref.No.	Part No.	Description
L003	1-406-191-11	(E,EA)...COIL, OSC (SW2)
L004	1-402-426-11	(E,EA)...COIL, ANT
L005	1-410-489-11	(E,EA)...INDUCTOR 390UH
L006	1-410-489-11	(Canadian,E,EA)...INDUCTOR 390UH
L006	1-410-496-21	(AEP,WG,IT).....INDUCTOR 1.5MMH
L007	1-410-489-11	(E,EA)...INDUCTOR 390UH
L008	1-410-489-11	(E,EA)...INDUCTOR 390UH
L009	1-410-489-11	(E,EA)...INDUCTOR 390UH
L010	1-402-425-11	(AEP,WG,IT)...COIL (ANT,LW)
L011	1-410-486-21	(AEP,WG,IT)...INDUCTOR 220UH
L101	1-410-489-11	(Canadian,E,EA)...INDUCTOR 390UH
L101	1-410-496-21	(AEP,WG,IT).....INDUCTOR 1.5MMH
L102	1-410-489-11	INDUCTOR 390UH
L501	1-408-080-00	INDUCTOR 100UH
LCD1	1-808-659-11	DISPLAY PANEL, LIQUID CRYSTAL
PL201	1-518-511-21	LAMP, PILOT 100MA/12V
Q11A	8-729-117-54	TRANSISTOR 2SA1175
Q11B	8-729-117-54	TRANSISTOR 2SA1175
Q12A	8-719-939-11	PHOTO TRANSISTOR GP2S09-B
Q12B	8-719-939-11	PHOTO TRANSISTOR GP2S09-B
Q81	8-729-801-93	TRANSISTOR 2SD1387
Q82	8-729-100-13	TRANSISTOR 2SC2001
Q83	8-729-100-13	TRANSISTOR 2SC2001
Q001	8-729-672-42	TRANSISTOR 2SC2724-C
Q002	8-729-806-10	TRANSISTOR 2SA1348
Q003	8-729-900-80	TRANSISTOR DTC114ES
Q004	8-729-806-10	TRANSISTOR 2SA1348
Q005	8-729-900-80	TRANSISTOR DTC114ES
Q006	8-729-806-10	(AEP,WG,IT,E,EA)...TRANSISTOR 2SA1348
Q007	8-729-900-80	(AEP,WG,IT,E,EA)...TRANSISTOR DTC114ES
Q008	8-729-806-10	(E,EA)...TRANSISTOR 2SA1348
Q009	8-729-900-80	(E,EA)...TRANSISTOR DTC114ES
Q010	8-729-202-67	TRANSISTOR 2SK246GR3
Q011	8-729-900-80	(AEP,WG,IT)...TRANSISTOR DTC114ES
Q012	8-729-900-80	(AEP,WG,IT)...TRANSISTOR DTC114ES
Q013	8-729-672-42	(WG,IT)...TRANSISTOR 2SC2724C
Q101	8-729-900-80	TRANSISTOR DTC114ES
Q103	8-729-202-67	TRANSISTOR 2SK246GR3
Q104	8-729-245-82	TRANSISTOR 2SC2458-Y
Q105	8-729-202-67	(AEP,WG,IT)...TRANSISTOR 2SK246GR3
Q106	8-729-245-82	(AEP,WG,IT)...TRANSISTOR 2SC2458-Y
Q201	8-729-245-82	TRANSISTOR 2SC2458-Y
Q301	8-729-900-74	TRANSISTOR DTC143TS
Q302	8-729-922-37	TRANSISTOR 2SD2144S
Q321	8-729-245-82	TRANSISTOR 2SC2458
Q351	8-729-806-10	TRANSISTOR 2SA1348
Q352	8-729-806-10	TRANSISTOR 2SA1348
Q353	8-729-806-10	TRANSISTOR 2SA1348
Q354	8-729-806-10	TRANSISTOR 2SA1348
Q401	8-729-900-74	TRANSISTOR DTC143TS
Q402	8-729-922-37	TRANSISTOR 2SD2144S
Q421	8-729-245-82	TRANSISTOR 2SC2458-Y
Q451	8-729-900-74	TRANSISTOR DTC143TS
Q452	8-729-806-10	TRANSISTOR 2SA1348

Ref.No.	Part No.	Description
Q453	8-729-119-76	TRANSISTOR 2SA1115P
Q503	8-729-119-76	TRANSISTOR 2SA1115P
Q504	8-729-119-76	TRANSISTOR 2SA1115P
Q505	8-729-119-76	TRANSISTOR 2SA1115P
Q506	8-729-900-80	TRANSISTOR DTC114ES
Q507	8-729-119-76	TRANSISTOR 2SA1115P
Q508	8-729-116-57	TRANSISTOR 2SB1013
Q509	8-729-116-57	TRANSISTOR 2SB1013
Q510	8-729-116-57	TRANSISTOR 2SB1013
Q511	8-729-116-57	TRANSISTOR 2SB1013
Q512	8-729-116-57	TRANSISTOR 2SB1013
Q513	8-729-806-10	TRANSISTOR 2SA1348
Q514	8-729-806-10	TRANSISTOR 2SA1348
Q515	8-729-806-10	TRANSISTOR 2SA1348
Q516	8-729-900-80	TRANSISTOR DTC114ES
Q601	8-729-806-10	TRANSISTOR 2SA1348
Q602	8-729-900-80	TRANSISTOR DTC114ES
Q603	8-729-806-10	TRANSISTOR 2SA1348
Q604	8-729-900-80	TRANSISTOR DTC114ES
Q605	8-729-806-10	TRANSISTOR 2SA1348
Q731	8-729-900-74	TRANSISTOR DTC143TS
Q732	8-729-900-74	TRANSISTOR DTC143TS
Q831	8-729-900-74	TRANSISTOR DTC143TS
Q832	8-729-900-74	TRANSISTOR DTC143TS
Q901	8-729-245-82	TRANSISTOR 2SC2458-Y
Q902	8-729-245-82	TRANSISTOR 2SC2458-Y
Q911	8-729-900-80	TRANSISTOR DTC114ES
Q912	8-729-808-76	TRANSISTOR 2SD1761-E
Q913	8-729-920-91	TRANSISTOR 2SB1187-F
Q951	8-729-900-80	TRANSISTOR DTC114ES
Q952	8-729-245-82	TRANSISTOR 2SC2458-Y
Q953	8-729-808-76	TRANSISTOR 2SD1761-E
Q954	8-729-900-80	TRANSISTOR DTC114ES
Q955	8-729-900-80	TRANSISTOR DTC114ES
Q956	8-729-245-82	TRANSISTOR 2SC2458-Y
Q957	8-729-808-76	TRANSISTOR 2SD1761-E
R11B	1-247-834-11	CARBON 1.3K 5% 1/4W
R12B	1-249-414-11	CARBON 560 5% 1/4W
R13B	1-247-818-11	CARBON 300 5% 1/4W
R14A	1-249-408-11	CARBON 180 5% 1/4W
R14B	1-249-408-11	CARBON 180 5% 1/4W
R17A	1-249-437-11	CARBON 47K 5% 1/4W
R17B	1-249-437-11	CARBON 47K 5% 1/4W
R18A	1-249-437-11	CARBON 47K 5% 1/4W
R18B	1-249-437-11	CARBON 47K 5% 1/4W
R41A	1-247-881-00	CARBON 120K 5% 1/4W
R41B	1-247-881-00	CARBON 120K 5% 1/4W
R42A	1-249-405-11	CARBON 100 5% 1/4W
R42B	1-249-405-11	CARBON 100 5% 1/4W
R43A	1-247-882-11	CARBON 130K 5% 1/4W
R43B	1-247-882-11	CARBON 130K 5% 1/4W
R44A	1-249-426-11	CARBON 5.6K 5% 1/4W
R44B	1-249-426-11	CARBON 5.6K 5% 1/4W
R45	1-249-430-11	CARBON 12K 5% 1/4W

Ref.No.	Part No.	Description				
R61A	1-247-881-00	CARBON	120K	5%	1/4W	
R61B	1-247-881-00	CARBON	120K	5%	1/4W	
R62A	1-249-405-11	CARBON	100	5%	1/4W	
R62B	1-249-405-11	CARBON	100	5%	1/4W	
R63A	1-247-882-11	CARBON	130K	5%	1/4W	
R63B	1-247-882-11	CARBON	130K	5%	1/4W	
R64A	1-249-426-11	CARBON	5.6K	5%	1/4W	
R64B	1-249-426-11	CARBON	5.6K	5%	1/4W	
R65	1-249-430-11	CARBON	12K	5%	1/4W	
R81A	1-249-409-11	CARBON	220	5%	1/4W	
R81B	1-249-409-11	CARBON	220	5%	1/4W	
R82A	1-249-409-11	CARBON	220	5%	1/4W	
R82B	1-249-409-11	CARBON	220	5%	1/4W	
R83	1-249-429-11	CARBON	10K	5%	1/4W	
R84	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R85	1-249-435-11	CARBON	33K	5%	1/4W	
R86	1-249-435-11	CARBON	33K	5%	1/4W	
R001	1-247-891-00	CARBON	330K	5%	1/4W	
R002	1-249-411-11	CARBON	330	5%	1/4W	
R003	1-247-803-11	(WG,IT)...CARBON	68	5%	1/4W	
R003	1-249-407-11	(Canadian,AEP,E,EA) ...CARBON	150	5%	1/4W	
R004	1-249-429-11	(AEP,WG,IT,E,EA) ...CARBON	10K	5%	1/4W	
R005	1-249-429-11	(AEP,WG,IT,E,EA) ...CARBON	10K	5%	1/4W	
R006	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R007	1-249-441-11	CARBON	100K	5%	1/4W	
R008	1-249-437-11	CARBON	47K	5%	1/4W	
R010	1-249-411-11	CARBON	330	5%	1/4W	
R011	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R012	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R013	1-247-903-00	(E,EA)...CARBON	1M	5%	1/4W	
R014	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R015	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R016	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R017	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R018	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R019	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R020	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R021	1-249-429-11	(E,EA)...CARBON	10K	5%	1/4W	
R022	1-249-417-11	(E,EA)...CARBON	1K	5%	1/4W	
R023	1-249-417-11	(E,EA)...CARBON	1K	5%	1/4W	
R024	1-249-409-11	CARBON	220	5%	1/4W	
R025	1-249-429-11	(AEP,WG,IT)...CARBON	10K	5%	1/4W	
R026	1-249-429-11	(AEP,WG,IT)...CARBON	10K	5%	1/4W	
R031	1-247-891-00	(WG,IT).....CARBON	330K	5%	1/4W	
R032	1-249-411-11	(WG,IT).....CARBON	330	5%	1/4W	
R051	1-247-795-11	(Canadian)....CARBON	33	5%	1/4W	
R101	1-249-417-11	CARBON	1K	5%	1/4W	
R102	1-249-432-11	CARBON	18K	5%	1/4W	
R103	1-249-435-11	CARBON	33K	5%	1/4W	
R104	1-249-427-11	CARBON	6.8K	5%	1/4W	
R105	1-249-430-11	CARBON	12K	5%	1/4W	
R106	1-247-848-11	CARBON	5.1K	5%	1/4W	
R107	1-249-416-11	(Canadian,AEP,E,EA) ...CARBON	820	5%	1/4W	
R107	1-249-420-11	(WG,IT)...CARBON	1.8K	5%	1/4W	
R108	1-249-437-11	CARBON	47K	5%	1/4W	
R109	1-249-425-11	CARBON	4.7K	5%	1/4W	
R110	1-249-425-11	CARBON	4.7K	5%	1/4W	
R111	1-249-423-11	CARBON	3.3K	5%	1/4W	
R112	1-249-423-11	CARBON	3.3K	5%	1/4W	
R113	1-249-441-11	CARBON	100K	5%	1/4W	
R114	1-249-429-11	CARBON	10K	5%	1/4W	
R115	1-249-422-11	CARBON	2.7K	5%	1/4W	
R116	1-249-422-11	CARBON	2.7K	5%	1/4W	
R119	1-249-405-11	CARBON	100	5%	1/4W	
R121	1-249-401-11	CARBON	47	5%	1/4W	
R122	1-249-414-11	CARBON	560	5%	1/4W	
R123	1-249-421-11	CARBON	2.2K	5%	1/4W	
R124	1-249-423-11	CARBON	3.3K	5%	1/4W	
R125	1-249-418-11	CARBON	1.2K	5%	1/4W	
R126	1-249-410-11	CARBON	270	5%	1/4W	
R127	1-249-425-11	CARBON	4.7K	5%	1/4W	
R128	1-249-425-11	CARBON	4.7K	5%	1/4W	
R129	1-249-425-11	CARBON	4.7K	5%	1/4W	
R130	1-249-405-11	CARBON	100	5%	1/4W	
R131	1-249-417-11	(AEP,WG,IT)...CARBON	1K	5%	1/4W	
R132	1-249-418-11	(AEP,WG,IT)...CARBON	1.2K	5%	1/4W	
R133	1-249-410-11	(AEP,WG,IT)...CARBON	270	5%	1/4W	
R134	1-249-414-11	(AEP,WG,IT)...CARBON	560	5%	1/4W	
R135	1-249-421-11	(AEP,WG,IT)...CARBON	2.2K	5%	1/4W	
R136	1-249-433-11	(AEP,WG,IT)...CARBON	22K	5%	1/4W	
R137	1-249-425-11	(AEP,WG,IT)...CARBON	4.7K	5%	1/4W	
R138	1-249-425-11	(AEP,WG,IT)...CARBON	4.7K	5%	1/4W	
R141	1-249-417-11	CARBON	1K	5%	1/4W	
R201	1-249-421-11	CARBON	2.2K	5%	1/4W	
R202	1-249-421-11	CARBON	2.2K	5%	1/4W	
R203	1-249-435-11	CARBON	33K	5%	1/4W	
R204	1-249-441-11	CARBON	100K	5%	1/4W	
R205	1-249-431-11	CARBON	15K	5%	1/4W	
R207	1-249-423-11	CARBON	3.3K	5%	1/4W	
R210	1-249-417-11	CARBON	1K	5%	1/4W	
R211	1-249-405-11	CARBON	100	5%	1/4W	
R212	1-249-429-11	CARBON	10K	5%	1/4W	
R301	1-249-441-11	CARBON	100K	5%	1/4W	
R302	1-249-441-11	CARBON	100K	5%	1/4W	
R303	1-249-418-11	CARBON	1.2K	5%	1/4W	
R304	1-249-431-11	CARBON	15K	5%	1/4W	
R305	1-249-420-11	CARBON	1.8K	5%	1/4W	
R306	1-247-887-00	CARBON	220K	5%	1/4W	
R307	1-249-417-11	CARBON	1K	5%	1/4W	
R308	1-249-435-11	CARBON	33K	5%	1/4W	
R309	1-249-427-11	CARBON	6.8K	5%	1/4W	
R310	1-249-421-11	CARBON	2.2K	5%	1/4W	
R312	1-249-435-11	CARBON	33K	5%	1/4W	
R313	1-249-417-11	CARBON	1K	5%	1/4W	
R314	1-249-441-11	CARBON	100K	5%	1/4W	
R315	1-249-429-11	CARBON	10K	5%	1/4W	
R316	1-249-417-11	CARBON	1K	5%	1/4W	
R317	1-249-423-11	CARBON	3.3K	5%	1/4W	

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Ref.No.	Part No.	Description				
R321	1-249-429-11	CARBON	10K	5%	1/4W	
R322	1-249-428-11	CARBON	8.2K	5%	1/4W	
R323	1-249-421-11	CARBON	2.2K	5%	1/4W	
R324	1-249-429-11	CARBON	10K	5%	1/4W	
R325	1-249-417-11	CARBON	1K	5%	1/4W	
R351	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R352	1-249-423-11	CARBON	3.3K	5%	1/4W	
R353	1-249-429-11	CARBON	10K	5%	1/4W	
R354	1-249-429-11	CARBON	10K	5%	1/4W	
R355	1-249-429-11	CARBON	10K	5%	1/4W	
R356	1-247-887-00	CARBON	220K	5%	1/4W	
R357	1-249-429-11	CARBON	10K	5%	1/4W	
R358	1-249-437-11	CARBON	47K	5%	1/4W	
R359	1-215-460-00	METAL	43K	1%	1/6W	
R360	1-249-437-11	CARBON	47K	5%	1/4W	
R361	1-249-411-11	CARBON	330	5%	1/4W	
R362	1-249-417-11	CARBON	1K	5%	1/4W	
R363	1-249-441-11	CARBON	100K	5%	1/4W	
R364	1-247-864-11	CARBON	24K	5%	1/4W	
R365	1-249-433-11	CARBON	22K	5%	1/4W	
R366	1-249-436-11	CARBON	39K	5%	1/4W	
R367	1-249-434-11	CARBON	27K	5%	1/4W	
R368	1-247-874-11	CARBON	62K	5%	1/4W	
R369	1-247-870-11	CARBON	43K	5%	1/4W	
R370	1-247-881-00	CARBON	120K	5%	1/4W	
R371	1-249-437-11	CARBON	47K	5%	1/4W	
R372	1-247-872-11	CARBON	51K	5%	1/4W	
R373	1-249-437-11	CARBON	47K	5%	1/4W	
R374	1-249-438-11	CARBON	56K	5%	1/4W	
R375	1-249-437-11	CARBON	47K	5%	1/4W	
R376	1-247-881-00	CARBON	120K	5%	1/4W	
R377	1-249-435-11	CARBON	33K	5%	1/4W	
R378	1-249-435-11	CARBON	33K	5%	1/4W	
R379	1-249-439-11	CARBON	68K	5%	1/4W	
R380	1-247-886-00	CARBON	180K	5%	1/4W	
R381	1-247-874-11	CARBON	62K	5%	1/4W	
R382	1-249-441-11	CARBON	100K	5%	1/4W	
R383	1-249-439-11	CARBON	68K	5%	1/4W	
R384	1-249-437-11	CARBON	47K	5%	1/4W	
R385	1-247-880-11	CARBON	110K	5%	1/4W	
R386	1-247-884-11	CARBON	160K	5%	1/4W	
R387	1-249-439-11	CARBON	68K	5%	1/4W	
R388	1-247-887-00	CARBON	220K	5%	1/4W	
R391	1-249-425-11	CARBON	4.7K	5%	1/4W	
R392	1-249-435-11	CARBON	33K	5%	1/4W	
R393	1-249-433-11	CARBON	22K	5%	1/4W	
R394	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R395	1-249-433-11	CARBON	22K	5%	1/4W	
R401	1-249-441-11	CARBON	100K	5%	1/4W	
R402	1-249-441-11	CARBON	100K	5%	1/4W	
R403	1-249-418-11	CARBON	1.2K	5%	1/4W	
R404	1-249-431-11	CARBON	15K	5%	1/4W	
R405	1-249-420-11	CARBON	1.8K	5%	1/4W	
R406	1-247-887-00	CARBON	220K	5%	1/4W	
R407	1-249-417-11	CARBON	1K	5%	1/4W	
R408	1-249-435-11	CARBON	33K	5%	1/4W	
R409	1-249-427-11	CARBON	6.8K	5%	1/4W	
R410	1-249-421-11	CARBON	2.2K	5%	1/4W	

Ref.No.	Part No.	Description				
R412	1-249-435-11	CARBON	33K	5%	1/4W	
R413	1-249-417-11	CARBON	1K	5%	1/4W	
R414	1-249-441-11	CARBON	100K	5%	1/4W	
R415	1-249-429-11	CARBON	10K	5%	1/4W	
R416	1-249-417-11	CARBON	1K	5%	1/4W	
R417	1-249-423-11	CARBON	3.3K	5%	1/4W	
R421	1-249-429-11	CARBON	10K	5%	1/4W	
R422	1-249-428-11	CARBON	8.2K	5%	1/4W	
R423	1-249-421-11	CARBON	2.2K	5%	1/4W	
R424	1-249-429-11	CARBON	10K	5%	1/4W	
R425	1-249-417-11	CARBON	1K	5%	1/4W	
R451	1-247-887-00	CARBON	220K	5%	1/4W	
R452	1-249-429-11	CARBON	10K	5%	1/4W	
R453	1-249-441-11	CARBON	100K	5%	1/4W	
R454	1-249-428-11	CARBON	8.2K	5%	1/4W	
R455	1-249-423-11	CARBON	3.3K	5%	1/4W	
R456	1-249-441-11	CARBON	100K	5%	1/4W	
R457	1-249-417-11	CARBON	1K	5%	1/4W	
R458	1-249-441-11	CARBON	100K	5%	1/4W	
R459	1-249-409-11	CARBON	220	5%	1/4W	
R460	1-249-409-11	CARBON	220	5%	1/4W	
R461	1-249-429-11	CARBON	10K	5%	1/4W	
R462	1-249-441-11	CARBON	100K	5%	1/4W	
R463	1-249-417-11	CARBON	1K	5%	1/4W	
R501	1-249-410-11	CARBON	270	5%	1/4W	
R502	1-249-410-11	CARBON	270	5%	1/4W	
R503	1-249-407-11	CARBON	150	5%	1/4W	
R504	1-249-407-11	CARBON	150	5%	1/4W	
R505	1-249-407-11	CARBON	150	5%	1/4W	
R506	1-249-409-11	CARBON	220	5%	1/4W	
R507	1-249-410-11	CARBON	270	5%	1/4W	
R508	1-249-407-11	CARBON	150	5%	1/4W	
R509	1-249-407-11	CARBON	150	5%	1/4W	
R510	1-249-425-11	CARBON	4.7K	5%	1/4W	
R511	1-249-417-11	CARBON	1K	5%	1/4W	
R512	1-249-433-11	CARBON	22K	5%	1/4W	
R513	1-249-425-11	CARBON	4.7K	5%	1/4W	
R514	1-249-420-11	CARBON	1.8K	5%	1/4W	
R515	1-249-393-11	CARBON	10	5%	1/4W	
R516	1-249-425-11	CARBON	4.7K	5%	1/4W	
R517	1-249-421-11	CARBON	2.2K	5%	1/4W	
R518	1-249-425-11	CARBON	4.7K	5%	1/4W	
R519	1-249-420-11	CARBON	1.8K	5%	1/4W	
R520	1-249-393-11	CARBON	10	5%	1/4W	
R521	1-249-425-11	CARBON	4.7K	5%	1/4W	
R522	1-249-421-11	CARBON	2.2K	5%	1/4W	
R523	1-249-433-11	CARBON	22K	5%	1/4W	
R524	1-249-430-11	CARBON	12K	5%	1/4W	
R525	1-249-432-11	CARBON	18K	5%	1/4W	
R526	1-247-895-00	CARBON	470K	5%	1/4W	
R527	1-247-895-00	CARBON	470K	5%	1/4W	
R528	1-249-425-11	CARBON	4.7K	5%	1/4W	
R529	1-249-429-11	CARBON	10K	5%	1/4W	
R530	1-249-429-11	CARBON	10K	5%	1/4W	
R531	1-249-437-11	CARBON	47K	5%	1/4W	
R532	1-249-425-11	CARBON	4.7K	5%	1/4W	
R533	1-249-437-11	CARBON	47K	5%	1/4W	

Note:
The components identified by mark **△** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque **△** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
R534	1-249-425-11	CARBON	4.7K	5%	1/4W	R692	1-249-405-11	CARBON	100	5%	1/4W
R535	1-249-437-11	CARBON	47K	5%	1/4W	R701	1-249-437-11	CARBON	47K	5%	1/4W
R536	1-249-425-11	CARBON	4.7K	5%	1/4W	R702	1-249-421-11	CARBON	2.2K	5%	1/4W
R538	1-249-425-11	CARBON	4.7K	5%	1/4W	R704	1-249-417-11	CARBON	1K	5%	1/4W
R539	1-249-417-11	CARBON	1K	5%	1/4W	R705	1-249-437-11	CARBON	47K	5%	1/4W
R540	1-249-421-11	CARBON	2.2K	5%	1/4W	R706	1-249-431-11	CARBON	15K	5%	1/4W
R541	1-249-421-11	CARBON	2.2K	5%	1/4W	R707	1-247-897-11	CARBON	560K	5%	1/4W
R542	1-249-421-11	CARBON	2.2K	5%	1/4W	R708	1-249-437-11	CARBON	47K	5%	1/4W
R543	1-249-437-11	CARBON	47K	5%	1/4W	R709	1-249-441-11	CARBON	100K	5%	1/4W
R544	1-249-399-11	CARBON	33	5%	1/4W	R710	1-249-433-11	CARBON	22K	5%	1/4W
R545	1-247-903-00	CARBON	1M	5%	1/4W	R711	1-249-427-11	CARBON	6.8K	5%	1/4W
R571	1-249-412-11	CARBON	390	5%	1/4W	R712	1-249-417-11	CARBON	1K	5%	1/4W
R572	1-249-411-11	CARBON	330	5%	1/4W	R721	1-249-441-11	CARBON	100K	5%	1/4W
R573	1-247-832-11	CARBON	1.1K	5%	1/4W	R722	1-247-864-11	CARBON	24K	5%	1/4W
R574	1-249-417-11	CARBON	1K	5%	1/4W	R723	1-249-430-11	CARBON	12K	5%	1/4W
R575	1-249-420-11	CARBON	1.8K	5%	1/4W	R724	1-249-437-11	CARBON	47K	5%	1/4W
R576	1-249-424-11	CARBON	3.9K	5%	1/4W	R725	1-249-425-11	CARBON	4.7K	5%	1/4W
R577	1-249-407-11	CARBON	150	5%	1/4W	R726	1-249-417-11	CARBON	1K	5%	1/4W
R578	1-249-409-11	CARBON	220	5%	1/4W	R731	1-249-413-11	CARBON	470	5%	1/4W
R579	1-249-411-11	CARBON	330	5%	1/4W	R732	1-249-425-11	CARBON	4.7K	5%	1/4W
R580	1-249-413-11	CARBON	470	5%	1/4W	R733	1-247-903-00	CARBON	1M	5%	1/4W
R581	1-249-415-11	CARBON	680	5%	1/4W	R734	1-249-434-11	CARBON	27K	5%	1/4W
R582	1-249-417-11	CARBON	1K	5%	1/4W	R735	1-249-419-11	CARBON	1.5K	5%	1/4W
R583	1-249-426-11	CARBON	5.6K	5%	1/4W	R736	1-247-903-00	CARBON	1M	5%	1/4W
R584	1-249-430-11	CARBON	12K	5%	1/4W	R737	1-249-425-11	CARBON	4.7K	5%	1/4W
R585	1-249-412-11	CARBON	390	5%	1/4W	R751	1-249-417-11	CARBON	1K	5%	1/4W
R586	1-249-411-11	CARBON	330	5%	1/4W	R752	1-249-438-11	CARBON	56K	5%	1/4W
R601	1-247-903-00	CARBON	1M	5%	1/4W	R753	1-249-412-11	CARBON	390	5%	1/4W
R603	1-249-417-11	CARBON	1K	5%	1/4W	R754	1-249-438-11	CARBON	56K	5%	1/4W
R604	1-249-417-11	CARBON	1K	5%	1/4W	R755	1-249-421-11	CARBON	2.2K	5%	1/4W
R605	1-249-429-11	CARBON	10K	5%	1/4W	R756	1-249-421-11	CARBON	2.2K	5%	1/4W
R606	1-249-405-11	CARBON	100	5%	1/4W	R757	1-249-482-11	CARBON	4.7	5%	1/2W
R607	1-249-417-11	CARBON	1K	5%	1/4W	R770	1-249-482-11	(WG,IT)...CARBON	4.7	5%	1/4W
R608	1-249-425-11	CARBON	4.7K	5%	1/4W	R771	1-249-414-11	CARBON	560	5%	1/4W
R609	1-249-405-11	CARBON	100	5%	1/4W	R775	1-249-429-11	CARBON	10K	5%	1/4W
R610	1-249-425-11	CARBON	4.7K	5%	1/4W	R781	1-249-429-11	CARBON	10K	5%	1/4W
R611	1-249-405-11	CARBON	100	5%	1/4W	R782	1-249-417-11	CARBON	1K	5%	1/4W
R612	1-249-413-11	CARBON	470	5%	1/4W	R783	1-249-418-11	CARBON	1.2K	5%	1/4W
R613	1-249-417-11	CARBON	1K	5%	1/4W	R784	1-249-440-11	CARBON	82K	5%	1/4W
R614	1-249-417-11	CARBON	1K	5%	1/4W	R785	1-249-441-11	CARBON	100K	5%	1/4W
R615	1-249-441-11	CARBON	100K	5%	1/4W	R791	1-249-441-11	CARBON	100K	5%	1/4W
R616	1-249-405-11	CARBON	100	5%	1/4W	R792	1-249-441-11	CARBON	100K	5%	1/4W
R617	1-249-423-11	CARBON	3.3K	5%	1/4W	R793	1-249-417-11	CARBON	1K	5%	1/4W
R618	1-249-417-11	CARBON	1K	5%	1/4W	R794	1-249-417-11	CARBON	1K	5%	1/4W
R619	1-249-410-11	CARBON	270	5%	1/4W	R795	1-249-417-11	CARBON	1K	5%	1/4W
R620	1-249-413-11	CARBON	470	5%	1/4W	R796	1-249-441-11	CARBON	100K	5%	1/4W
R621	1-249-420-11	CARBON	1.8K	5%	1/4W	R797	1-247-903-00	CARBON	1M	5%	1/4W
R622	1-249-419-11	CARBON	1.5K	5%	1/4W	R801	1-249-437-11	CARBON	47K	5%	1/4W
R623	1-249-421-11	CARBON	2.2K	5%	1/4W	R802	1-249-421-11	CARBON	2.2K	5%	1/4W
R624	1-249-425-11	CARBON	4.7K	5%	1/4W	R804	1-249-417-11	CARBON	1K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W	R805	1-249-437-11	CARBON	47K	5%	1/4W
R626	1-249-425-11	CARBON	4.7K	5%	1/4W	R806	1-249-431-11	CARBON	15K	5%	1/4W
R627	1-249-441-11	CARBON	100K	5%	1/4W	R807	1-247-897-11	CARBON	560K	5%	1/4W
R628	1-249-407-11	CARBON	150	5%	1/4W	R808	1-249-437-11	CARBON	47K	5%	1/4W
R629	1-249-407-11	CARBON	150	5%	1/4W	R809	1-249-441-11	CARBON	100K	5%	1/4W
R630	1-249-405-11	CARBON	100	5%	1/4W	R810	1-249-433-11	CARBON	22K	5%	1/4W
R691	1-249-405-11	CARBON	100	5%	1/4W	R811	1-249-427-11	CARBON	6.8K	5%	1/4W

Ref.No.	Part No.	Description				
R812	1-249-417-11	CARBON	1K	5%	1/4W	
R821	1-249-441-11	CARBON	100K	5%	1/4W	
R822	1-247-864-11	CARBON	24K	5%	1/4W	
R823	1-249-430-11	CARBON	12K	5%	1/4W	
R824	1-249-437-11	CARBON	47K	5%	1/4W	
R825	1-249-425-11	CARBON	4.7K	5%	1/4W	
R826	1-249-417-11	CARBON	1K	5%	1/4W	
R831	1-249-413-11	CARBON	470	5%	1/4W	
R832	1-249-425-11	CARBON	4.7K	5%	1/4W	
R833	1-247-903-00	CARBON	1M	5%	1/4W	
R834	1-249-434-11	CARBON	27K	5%	1/4W	
R835	1-249-419-11	CARBON	1.5K	5%	1/4W	
R836	1-247-903-00	CARBON	1M	5%	1/4W	
R837	1-249-425-11	CARBON	4.7K	5%	1/4W	
R851	1-249-417-11	CARBON	1K	5%	1/4W	
R852	1-249-438-11	CARBON	56K	5%	1/4W	
R853	1-249-412-11	CARBON	390	5%	1/4W	
R854	1-249-438-11	CARBON	56K	5%	1/4W	
R855	1-249-421-11	CARBON	2.2K	5%	1/4W	
R856	1-249-421-11	CARBON	2.2K	5%	1/4W	
R857	1-249-482-11	CARBON	4.7	5%	1/2W	
R870	1-249-482-11	(WG,IT)...CARBON	4.7	5%	1/4W	
R871	1-249-414-11	CARBON	560	5%	1/4W	
R875	1-249-429-11	CARBON	10K	5%	1/4W	
R891	△1-212-881-11	FUSIBLE	100	5%	1/4W	F
R892	△1-212-881-11	FUSIBLE	100	5%	1/4W	F
R893	1-247-752-11	CARBON	1K	5%	1/2W	
R894	1-247-752-11	CARBON	1K	5%	1/2W	
R895	△1-212-881-11	FUSIBLE	100	5%	1/4W	F
R896	1-247-883-00	CARBON	150K	5%	1/4W	
R897	1-249-437-11	CARBON	47K	5%	1/4W	
R898	1-249-429-11	CARBON	10K	5%	1/4W	
R901	1-249-419-11	CARBON	1.5K	5%	1/4W	
R902	1-249-428-11	CARBON	8.2K	5%	1/4W	
R903	1-249-420-11	CARBON	1.8K	5%	1/4W	
R904	1-249-433-11	CARBON	22K	5%	1/4W	
R905	1-202-725-91	(Canadian)...SOL ID	3.3M	10%	1/2W	
R911	1-247-903-00	CARBON	1M	5%	1/4W	
R912	△1-217-473-00	FUSIBLE	2.2	5%	1W	F
R913	△1-217-473-00	FUSIBLE	2.2	5%	1W	F
R914	1-249-432-11	CARBON	18K	5%	1/4W	
R915	1-249-423-11	CARBON	3.3K	5%	1/4W	
R916	1-249-431-11	CARBON	15K	5%	1/4W	
R917	1-249-431-11	CARBON	15K	5%	1/4W	
R918	1-249-429-11	CARBON	10K	5%	1/4W	
R919	1-249-413-11	CARBON	470	5%	1/4W	
R931	△1-212-978-11	FUSIBLE	68	5%	1/2W	F
R951	1-249-423-11	CARBON	3.3K	5%	1/4W	
R952	△1-213-040-61	FUSIBLE	1.5	5%	1W	F
R953	1-249-417-11	CARBON	1K	5%	1/4W	
R954	1-249-417-11	CARBON	1K	5%	1/4W	
R955	1-249-425-11	CARBON	4.7K	5%	1/4W	
R956	1-249-429-11	CARBON	10K	5%	1/4W	
R957	1-249-425-11	CARBON	4.7K	5%	1/4W	
R958	△1-213-040-61	FUSIBLE	1.5	5%	1W	F
R961	1-249-417-11	CARBON	1K	5%	1/4W	
RV41A	1-228-989-00	RES, ADJ, CARBON 470				
RV41B	1-228-989-00	RES, ADJ, CARBON 470				

Ref.No.	Part No.	Description
RV42	1-230-500-11	RES, ADJ, CARBON 220K
RV61A	1-228-989-00	RES, ADJ, CARBON 470
RV61B	1-228-989-00	RES, ADJ, CARBON 470
RV62	1-230-500-11	RES, ADJ, CARBON 220K
RV101	1-228-995-00	(Canadian,AEP,E,EA)
RV101	1-230-503-11	...RES, ADJ, CARBON 20K (WG,IT)...RES, ADJ, CARBON 10K
RV102	1-228-995-00	RES, ADJ, CARBON 20K
RV321	1-230-497-11	RES, ADJ, CARBON 22K
RV421	1-230-497-11	RES, ADJ, CARBON 22K
RV671	1-238-540-11	RES, VAR, CARBON 50K/50K (VOLUME)
RV691	1-238-101-21	RES, VAR, SLIDE 100K (BALANCE)
RV731	1-238-451-21	RES, VAR, SLIDE 250K (100Hz)
RV732	1-238-451-21	RES, VAR, SLIDE 250K (400Hz)
RV733	1-238-451-21	RES, VAR, SLIDE 250K (1kHz)
RV734	1-238-451-21	RES, VAR, SLIDE 250K (4kHz)
RV735	1-238-451-21	RES, VAR, SLIDE 250K (12kHz)
RV831	1-238-451-21	RES, VAR, SLIDE 250K (100Hz)
RV832	1-238-451-21	RES, VAR, SLIDE 250K (400Hz)
RV833	1-238-451-21	RES, VAR, SLIDE 250K (1kHz)
RV834	1-238-451-21	RES, VAR, SLIDE 250K (4kHz)
RV835	1-238-451-21	RES, VAR, SLIDE 250K (12kHz)
RY81	1-515-614-11	RELAY
S11A	1-571-281-21	SWITCH, LEAF
S11B	1-571-281-21	SWITCH, LEAF
S12	1-571-281-21	SWITCH, LEAF
S13	1-571-281-21	SWITCH, LEAF
S14A	1-571-281-21	SWITCH, LEAF
S14B	1-571-281-21	SWITCH, LEAF
S200	1-554-303-21	SWITCH, KEY BOARD (0)
S201	1-554-303-21	SWITCH, KEY BOARD (1)
S202	1-554-303-21	SWITCH, KEY BOARD (2)
S203	1-554-303-21	SWITCH, KEY BOARD (3)
S204	1-554-303-21	SWITCH, KEY BOARD (4)
S205	1-554-303-21	SWITCH, KEY BOARD (5)
S206	1-554-303-21	SWITCH, KEY BOARD (6)
S207	1-554-303-21	SWITCH, KEY BOARD (7)
S208	1-554-303-21	SWITCH, KEY BOARD (8)
S209	1-554-303-21	SWITCH, KEY BOARD (9)
S210	1-554-303-21	SWITCH, KEY BOARD (MEMORY)
S211	1-554-303-21	SWITCH, KEY BOARD (ENTER)
S212	1-554-303-21	SWITCH, KEY BOARD (UP)
S213	1-554-303-21	SWITCH, KEY BOARD (DOWN)
S214	1-554-303-21	SWITCH, KEY BOARD (BAND)
S351	1-554-798-31	SWITCH, SLIDE (ISS)
S571	1-554-303-21	SWITCH, KEY BOARD (STOP)
S572	1-554-303-21	SWITCH, KEY BOARD (FWD)
S573	1-554-303-21	SWITCH, KEY BOARD (REV)
S574	1-554-303-21	SWITCH, KEY BOARD (REW)
S575	1-554-303-21	SWITCH, KEY BOARD (FF)
S576	1-554-303-21	SWITCH, KEY BOARD (REC)
S577	1-554-303-21	SWITCH, KEY BOARD (STOP)
S578	1-554-303-21	SWITCH, KEY BOARD (PAUSE)

Note:
The components identified by mark **△** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque **△** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
S579	1-554-303-21	SWITCH, KEY BOARD (FWD)
S580	1-554-303-21	SWITCH, KEY BOARD (REV)
S581	1-554-303-21	SWITCH, KEY BOARD (REC MUTE)
S582	1-554-303-21	SWITCH, KEY BOARD (REW)
S583	1-554-303-21	SWITCH, KEY BOARD (FF)
S584	1-554-303-21	SWITCH, KEY BOARD (AMS)
S585	1-554-303-21	SWITCH, KEY BOARD (HIGH)
S586	1-554-303-21	SWITCH, KEY BOARD (NOR)
S591	1-570-837-11	SWITCH, SLIDE (DIR)
S592	1-570-849-11	SWITCH, SLIDE (DOLBY)
S601	1-571-436-11	SWITCH, KEYBOARD (POWER)
S602	1-571-436-11	SWITCH, KEYBOARD (DOL)
S603	1-554-303-21	SWITCH, KEY BOARD (PHONO)
S604	1-554-303-21	SWITCH, KEY BOARD (TUNER)
S605	1-554-303-21	SWITCH, KEY BOARD (CD)
S606	1-554-303-21	SWITCH, KEY BOARD (TAPE)
T81	1-433-337-11	TRANSFORMER, BIAS OSCILLATION
T901	⚠ 1-449-699-11	(E,EA).....TRANSFORMER, POWER
T901	⚠ 1-449-700-11	(AEP,WG,IT)...TRANSFORMER, POWER
T901	⚠ 1-449-701-11	(Canadian)....TRANSFORMER, POWER
TB001	1-536-708-00	(Canadian,AEP,E,EA) ...TERMINAL BOARD, PUSH 4P
TB001	1-536-707-10	(WG,IT)...TERMINAL BOARD, PUSH 2P
TP002	1-563-199-20	(WG,IT)...CONNECTOR, PAL
TB101	*4-925-530-01	PLATE, GROUND
TB791	1-536-705-00	TERMINAL BOARD (SP)
TB901	*4-925-530-01	PLATE, GROUND
TP101	*1-560-060-00	PIN, CONNECTOR 2P
TP351	*1-560-061-00	PIN, CONNECTOR 3P
TP501	*1-560-060-00	PIN, CONNECTOR 2P
VS901	⚠ 1-571-722-11	(E,EA)...SWITCH, VOLTAGE SELECTION
X101	1-577-075-11	OSCILLATOR, CERAMIC 456kHz
X201	1-577-191-11	VIBRATOR, CRYSTAL 7.2MHz
X501	1-577-358-21	VIBRATOR, CERAMIC 4MHz
X601	1-577-358-21	VIBRATOR, CERAMIC 4MHz

ACCESSORY & PACKING MATERIAL

1-501-349-11	ANTENNA, LOOP (AM)
1-465-166-11	REMOTE COMMANDER (RM-S616)
2-128-529-01	CASE, BATTERY
3-694-922-01	SHEET, PROTECTION
3-750-458-11	(Canadian,AEP,E)... MANUAL INSTRUCTION (FH-616R)
3-750-458-41	(AEP)....MANUAL INSTRUCTION (FH-616R)
3-750-458-51	(WG,IT)...MANUAL INSTRUCTION (FH-616R)
*4-910-128-01	CUSHION
*4-930-375-01	(E)....INDIVIDUAL CARTON (FH-616R)
*4-930-376-01	(Canadian,AEP,WG,IT)...INDIVIDUAL CARTON (FH-616R)
*X-4919-684-1	(E)...HANDLE ASSY

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SS-H616/H616K

SERVICE MANUAL

Discard SS-H616 Service Manual
(No. 9-953-676-11) previously issued.
This Service Manual contains it.

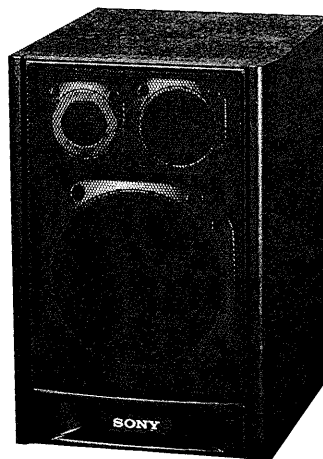
Canadian Model
West Germany Model

SS-H616

E Model
SS-H616/H616K

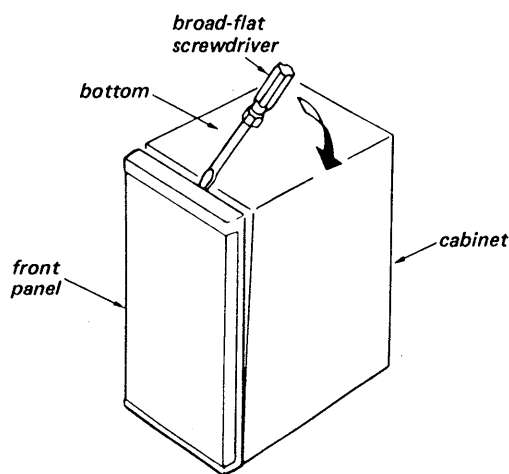
SPECIFICATIONS

Speaker system	3-way
Speaker units	Woofer: 12cm (5in.), cone type Tweeter: 5cm (2in.), cone type Super tweeter: 2cm (13/16in.), dome type
Enclosure type	Bass reflex
Power handling capacity	Nominal 25W Music 50W
Sensitivity	88dB/W/m
Frequency range	70-20,000 Hz
Impedance	6 ohms
Dimensions	Approx. 185x270x220mm (w/h/d) (7 3/8 x 10 3/4 x 8 3/4 in.)
Weight	Approx. 2.8 kg (6 lb 30 oz) net per speaker



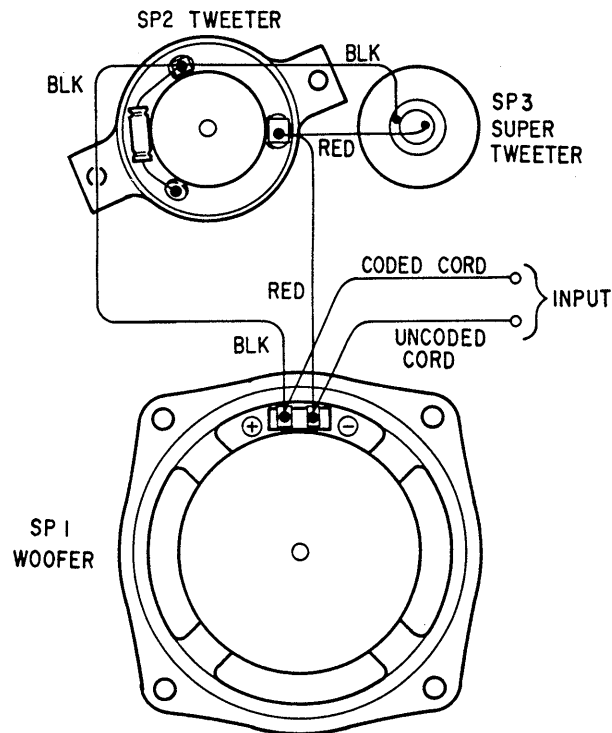
- SS-H616 is the speaker system in FH-515R and FH-616R.
- SS-H616K is the speaker system in FH-424R.

1. FRONT PANEL REMOVAL



Note: Be careful not to scratch the cabinet.

2. WIRING DIAGRAM

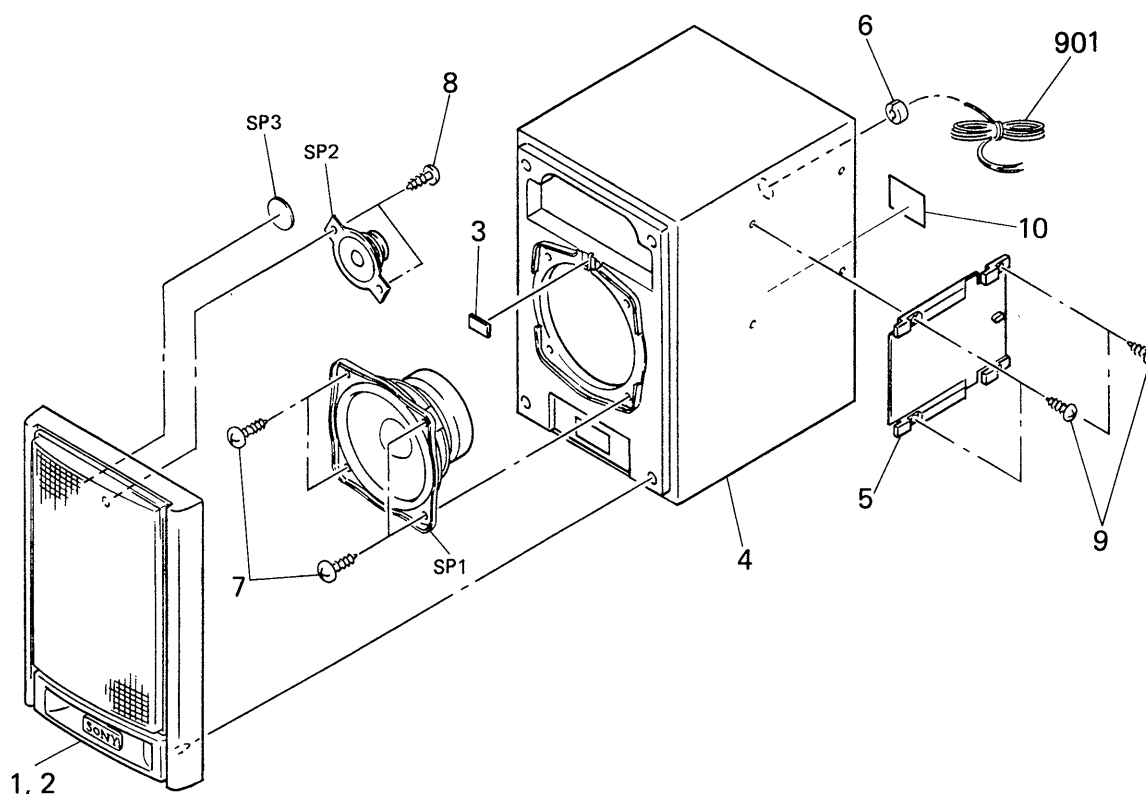


SPEAKER SYSTEM
SONY®

3. EXPLODED VIEW AND PARTS LIST

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



No.	Part No.	Description	Remarks
1	X-4929-619-1	PANEL (RIGHT) ASSY, FRONT	
2	X-4929-620-1	PANEL (LEFT) ASSY, FRONT	
3	*4-920-140-01	PACKING	
4	*X-4929-603-1	(Canadian,E)....CABINET ASSY, SPEAKER	
	*X-4929-615-1	(West Germany)...CABINET ASSY, SPEAKER	
5	4-929-606-01	PANEL, SIDE	
6	4-870-003-00	CLIPPER, CORD	
7	4-874-614-11	SCREW (4) (3.5X14), TAPPING	
8	7-685-646-01	SCREW +BVTP 3X8 TYPE1	
9	4-874-614-61	SCREW (4) (3.5X16), TAPPING	
10	*4-929-655-01	(SS-H616K)...LABEL, MODEL NUMBER	

Ref.No.	Part No.	Description
901	1-574-439-11	CORD, SPEAKER
SP1	1-544-077-11	SPEAKER (12CM)
SP2	1-544-078-11	SPEAKER (5CM)
SP3	1-544-110-11	SPAERKER (2CM)

ACCESSORY & PACKING MATERIAL

*4-857-137-01	CUSHION
4-920-151-01	SHEET, PROTECTION